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**WATER QUALITY DATA
FOR ONTARIO
LAKES AND STREAMS
1983**

VOLUME XIX

SOUTHEASTERN REGION

MARCH 1989



**Environment
Ontario**

**Jim Bradley
Minister**

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1983

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SOUTHEASTERN REGION

Water Resources Branch

March 1989

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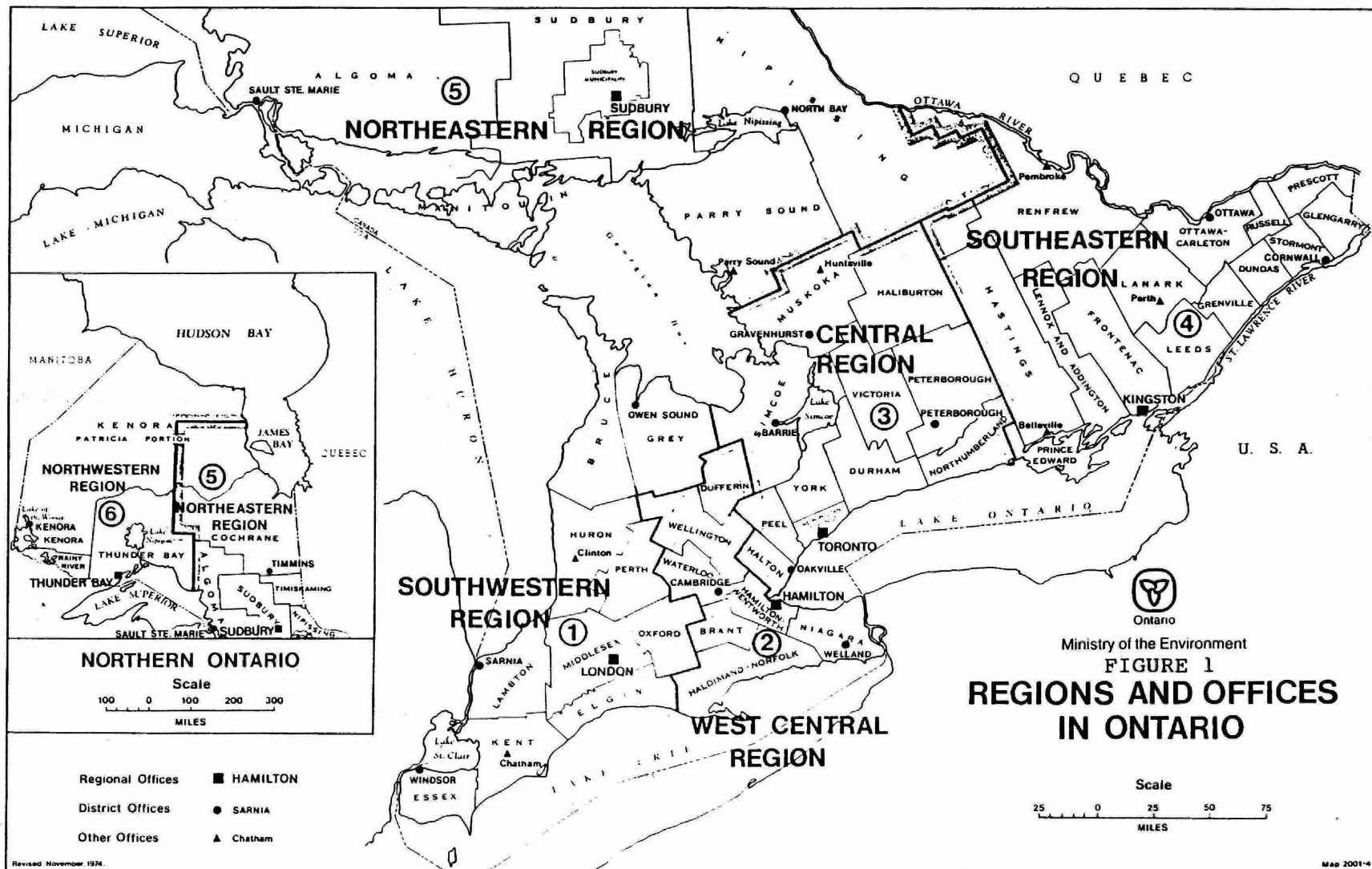
INTRODUCTION

"Water Quality Data Ontario Lakes and Streams, 1983, Volume XIX, Southeastern Region", is a revised version of the previously published series entitled "Water Quality Data for Ontario Lakes and Streams, 1981, Volume I-XVII". Published by the Water Resources Branch of the Ontario Ministry of the Environment. The data presented in this publication were collected by the Water Resources Assessment Units of this Ministry's six Regional Offices (Figure 1) with the assistance of local Conservation Authorities. Compilation and publication were performed by the River Systems Section of the Water Resources Branch. The data result from a routine sampling program designed to provide a long-term record of water quality information at specific points on rivers and inland lakes in Ontario.

Sampling station locations have been selected to meet one or more of the following requirements: (1) to measure quantitatively and qualitatively, the materials discharged from tributary streams to the terminal basins; (2) to monitor the effects of wastewater discharges on a watercourse; (3) to provide data that can be considered generally representative of water quality conditions in a certain area.

The information is used by the Ontario Ministry of the Environment to maintain surveillance over water quality and to provide supporting data used in the analysis and prediction of water quality for planning and other purposes. The data are also made available to any person or agency concerned with the quality of Ontario's rivers and lakes. The booklet "Water Management Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment", 1978 (Revised May, 1984) outlines the current policies for water management in Ontario.

Samples are analysed for some or all of the following parameters: counts of total and fecal coliforms, enterococci, *Pseudomonas aeruginosa* and *Escherichia coli* forms, concentrations of biochemical oxygen demand, total phosphorus, filtered reactive phosphate, filtered ammonia, total Kjeldahl nitrogen, filtered nitrite and nitrate forms of nitrogen; total suspended and dissolved solids; levels of conductivity and



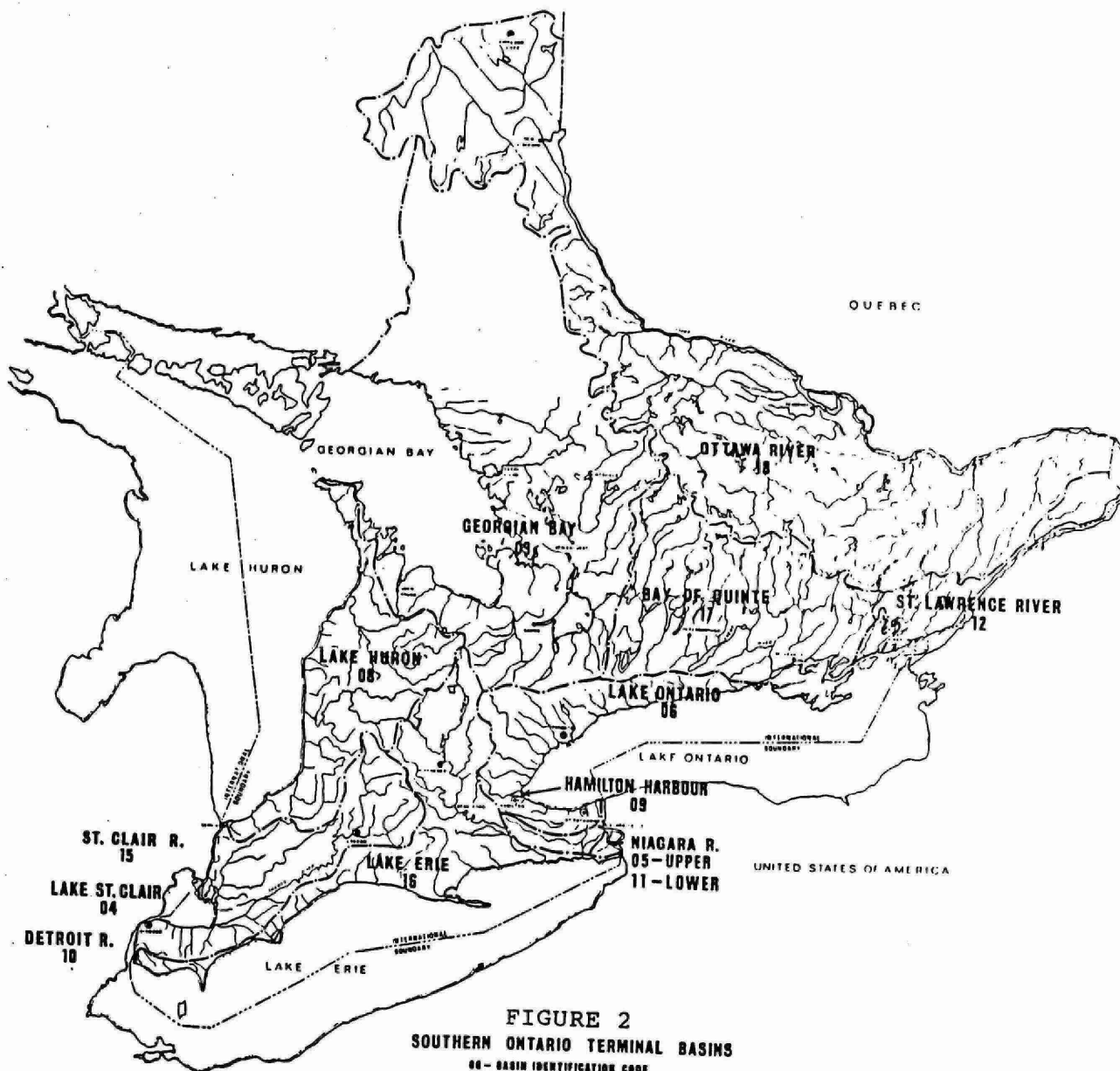
turbidity; concentrations of chlorides, sulphates, unfiltered reactive silicates, acidity, alkalinity; units of pH; concentrations of total iron, phenols, hardness, calcium, magnesium; units of colour; concentrations of potassium, sodium, total organic carbon, chemical oxygen demand, solvent extractables, arsenic, mercury, aluminium, chromium, copper, lead, cadmium, zinc, manganese, nickel, fluoride, cyanide and cobalt.

In addition, radiochemical analyses are conducted on selected samples and the results are expressed as levels of ionizing radiation (i.e. the number of nuclear disintegrations per second). Selected samples are analysed for some or all of the following radiochemical parameters: gross alpha, gross beta, radium-226, total uranium, cesium-137, cesium-134, cobalt-60, tritium and iodine 131.

Some samples are also analysed for some or all of the following synthetic organic parameters: concentrations of PCB, PCP and 2,4,5-T.

The water quality monitoring program commenced in July 1964 in Southern Ontario and currently consists of a total of 780 stations throughout Ontario. The following maps (figures 2 and 3) show the Southern and Northern Ontario Terminal Basins which are used to identify the sampling station locations. Definitions or brief descriptions are provided for the more common parameters of pollution under the section entitled Interpretation of Data.

Other water quality monitoring programs such as the Fish Contaminant Monitoring Program which is co-ordinated by the Ontario Ministries of Natural Resources, Environment and Labour are not discussed in this publication. A summary of health implications of contaminants in fish with a listing of test results from each fish sampling location can be found in the Ministry publication, "Guide to Eating Ontario Sport Fish." This publication is updated annually and is available free of charge, Ministry of the Environment, Water Resources Branch, 135 St. Clair Avenue West, Toronto, Ontario, M4V 1P5, telephone (416) 323-4994.



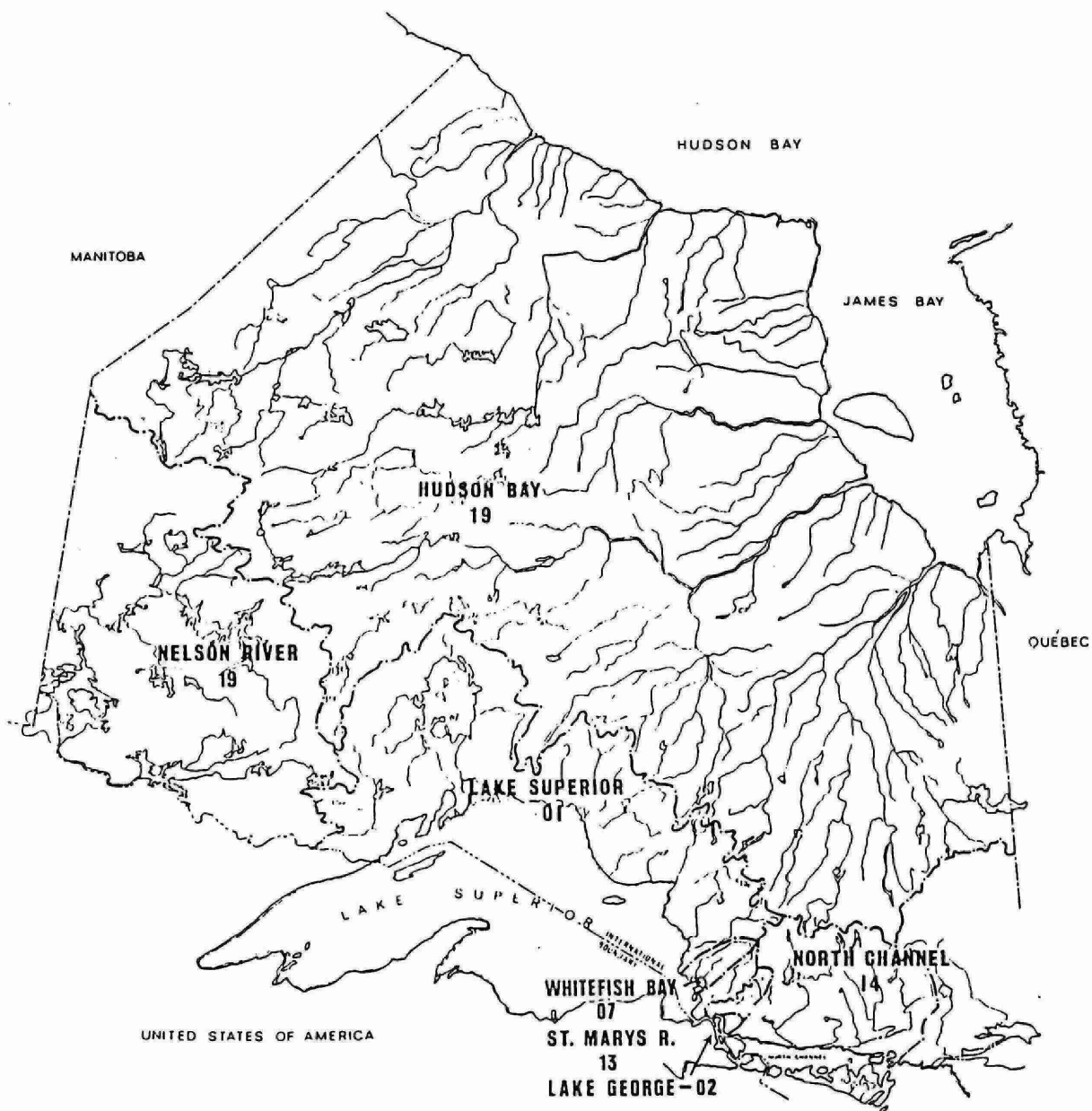


FIGURE 3
NORTHERN ONTARIO TERMINAL BASINS
19 - BASIN IDENTIFICATION CODE

The streamflow station network in Ontario is not discussed in this publication. Whenever streamflow data exists at tributary locations which are coincident with the water quality monitoring station locations, mean daily discharges is reported along with the water quality data. The collection of hydrometric data in Ontario has been carried out under a Memorandum of Agreement between the Government of Canada and the Province of Ontario since April, 1975. The Province of Ontario is represented in the Agreement by the Ministry of the Environment, the Ministry of Natural Resources and Ontario Hydro. These agencies meet at regular intervals with the Water Survey of Canada to administer the Agreement. Streamflow data for Ontario are published annually as surface water data by the Federal Government.

NETWORK MAP SHEETS

Individual station locations are identified on specially prepared network maps. These network maps have been drawn to conform approximately to the boundaries of the Ministry's Regions, and are grouped according to Regions. Two index maps (Figures 4 and 5) illustrate individual map sheet coverages within the Province.

The following procedures was used in the preparation of the maps. Individual base maps within a Region were assembled using the National Topographic Series maps at a scale of 1:250,000. In northern Ontario, this was reduced to a scale of 1:500,000 in the Lake Superior and Nelson River basins, and to a scale of 1:2,000,000 in the Hudson Bay basin. For each base map, an overlay of the river systems was prepared, showing major watershed and Ministry of the Environment Regional boundaries. Numeric terminal basin and stream codes were added, and active water quality monitoring stations were located on each overlay and referenced with station numbers. The overlays were then reduced to approximately 40% of their original size for purposes of this publication.

The previously-mentioned terminal basin and stream code, when combined in sequence with a given station number, form a unique station identifier which appears as the "Station ID". The "Station ID" is listed for all active monitoring stations in the "Sampling Station Directory", an alphabetical listing of terminal streams monitored in Southeastern Region (See Sampling Station Directory).

The location of stations in the Southeastern Region are shown in figures 6, 7, 8 and 9. The locations of the other stations in the other regions and in other parts of Ontario such as those located on the Great Lakes or those operated by the Water Quality Branch, Ontario Region, Environment Canada, are not included.

INTERPRETATION OF DATA

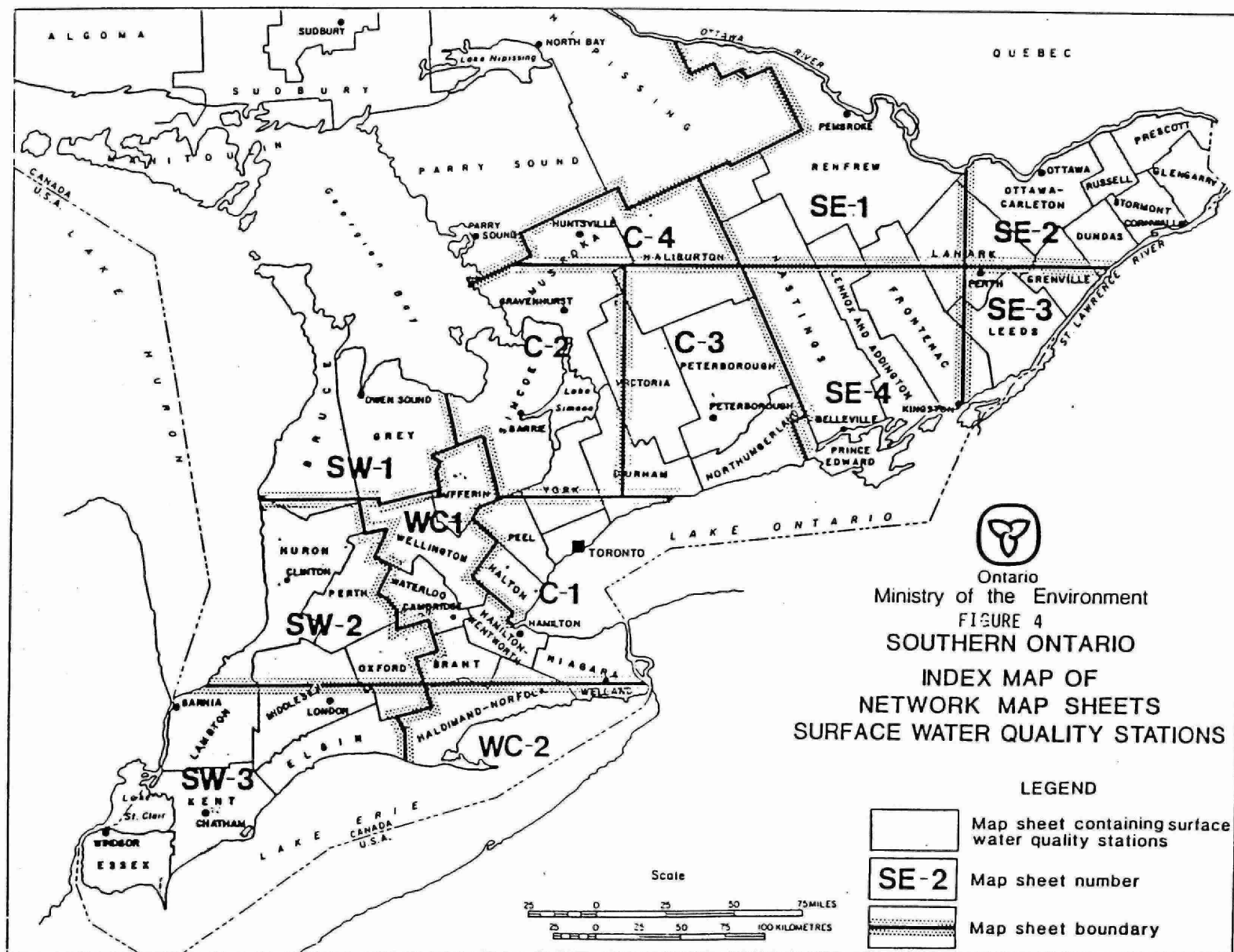
The definition of the parameters measured in the Provincial Water Quality Monitoring Program are listed in the following pages. The significance of each measurement in regard to specific water uses can be determined by referring to the booklet "Water Management, Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, November, 1978". (Revised, May 1984).

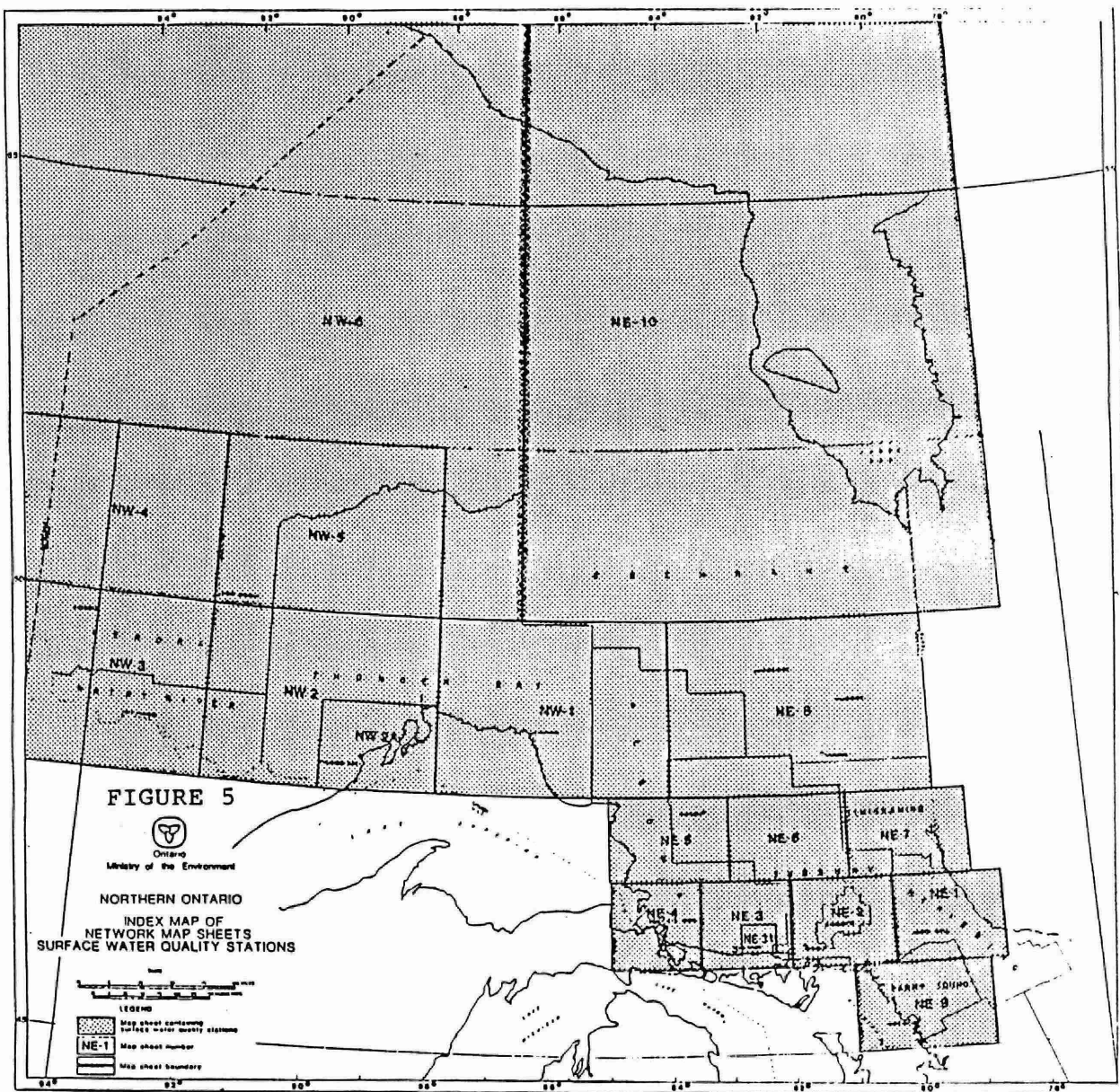
A. ANALYSES AND MEASUREMENTS CONDUCTED AT THE SAMPLING SITE

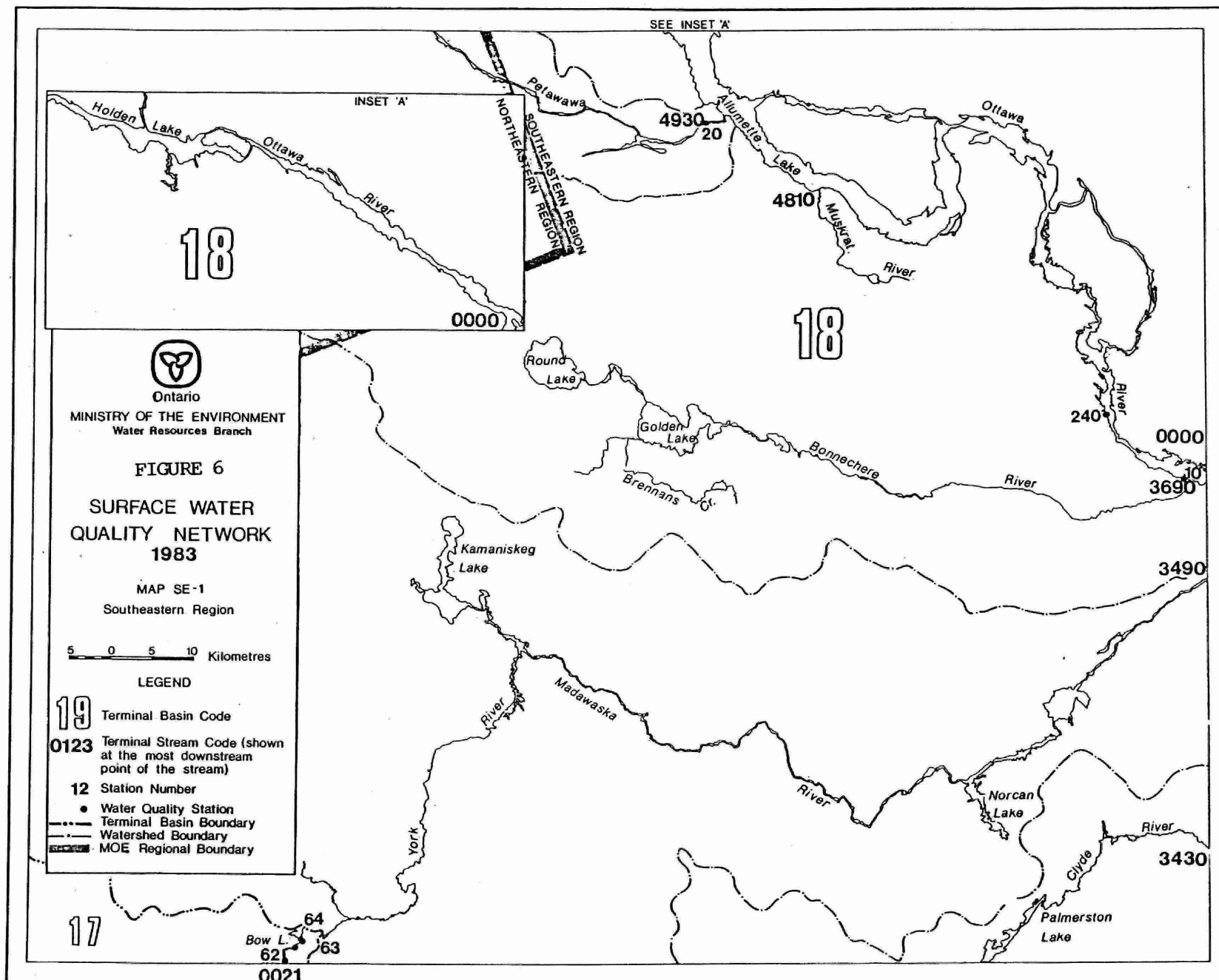
Stream Condition

The physical condition of the body of water is described from an on-site examination at the time of sampling and is represented by a one-digit number from one to zero as follows:

1. Stream dry
2. Frozen to stream bed
3. Stream in flood condition
4. Sampled through ice









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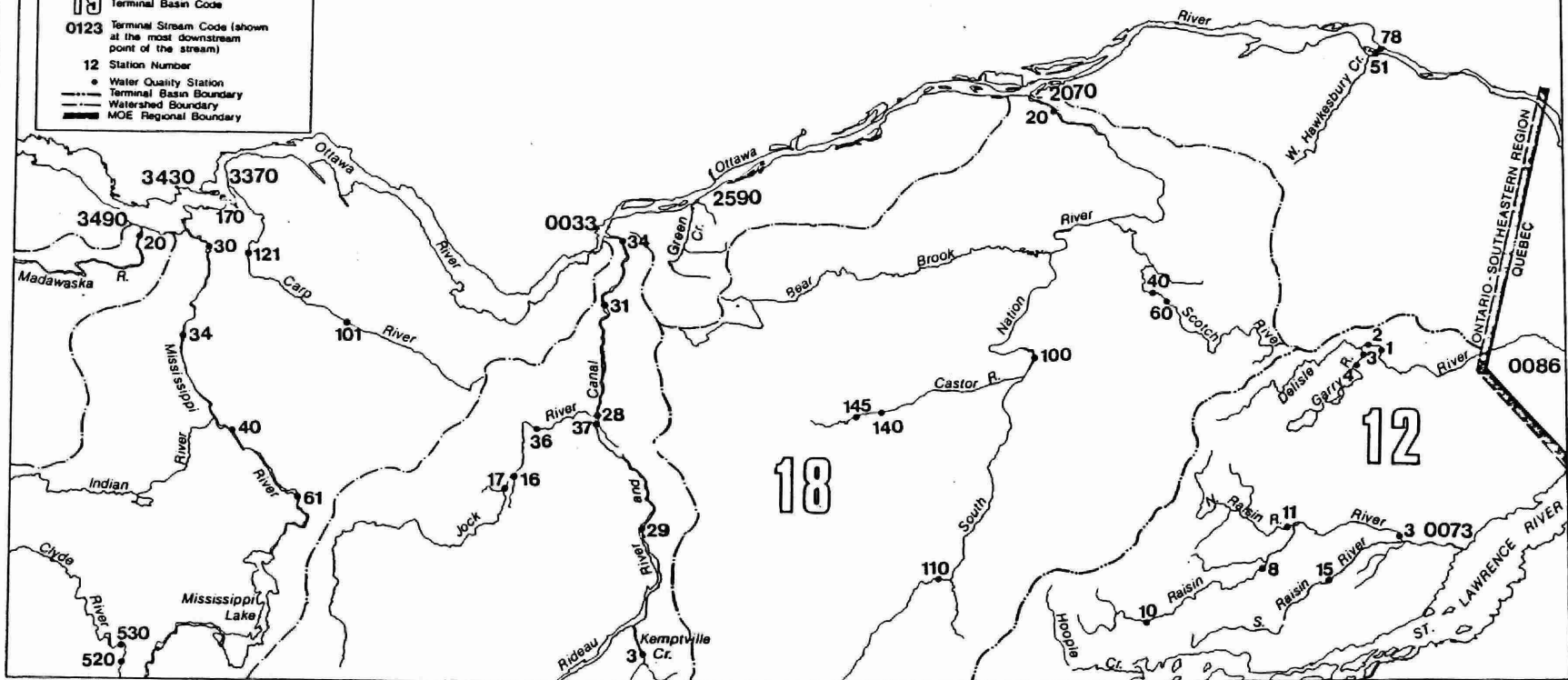
FIGURE 7
SURFACE WATER
QUALITY NETWORK
1983

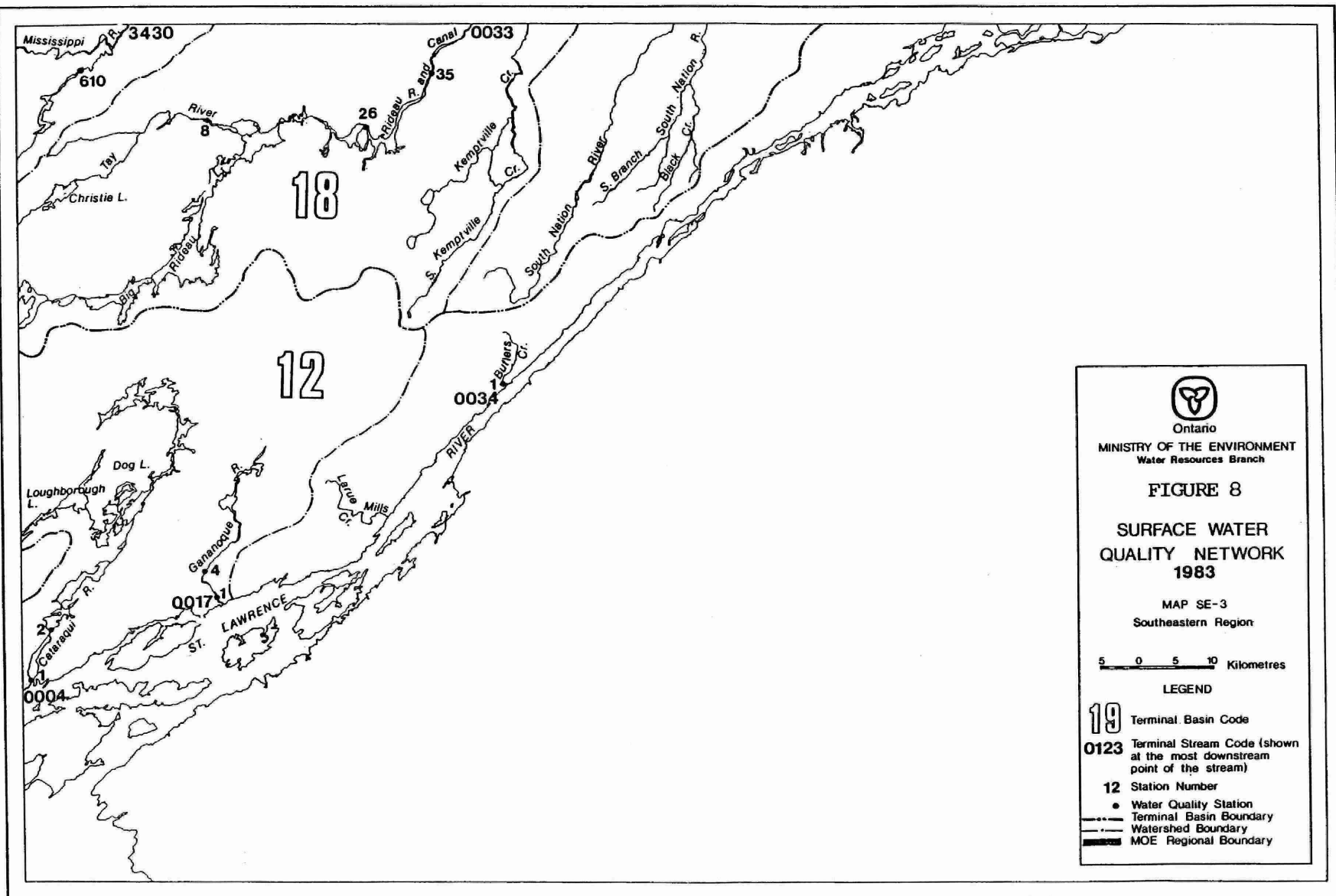
MAP SE-2
Southeastern Region

5 0 5 10
Kilometres

LEGEND

- 19 Terminal Basin Code
0123 Terminal Stream Code (shown
at the most downstream
point of the stream)
12 Station Number
• Water Quality Station
--- Watershed Boundary
--- MOE Regional Boundary





5. Suspended algae
6. No apparent algae
7. Profuse weed growth
8. Normal
9. Oil scum or floating matter
10. Objectionable odours

Under some circumstances a combination of up to three of the above conditions may be shown for a given sample at an individual station.

Streamflow

Streamflow information at or near a water quality monitoring site is an important factor when interpreting and employing water quality data. The product of streamflow and concentration defines the mass of material passing a point. Streamflow is also a useful reference when comparing water quality data for different periods of the year (e.g. spring flood vs summer drought).

Flows in many of the streams sampled are measured by the Water Survey of Canada, Inland Waters Directorate, Environment Canada.

Temperature

Water temperature is an important factor when a number of water quality parameters are being evaluated. Temperature directly affects the solubility of gases (e.g. dissolved oxygen) and significantly affects biological and chemical reaction rates.

Temperature is measured at the sampling site with an electronic thermistor or a mercury thermometer.

Dissolved Oxygen

Dissolved oxygen in water originates directly from the atmosphere or through photosynthesis in aquatic plants. Ample dissolved oxygen is necessary to maintain satisfactory conditions for fish and other biological life in water. Organic wastes and some inorganic materials exert, upon decomposition, an oxygen demand which may deplete the dissolved oxygen below levels required by aquatic life.

Dissolved oxygen is measured at the sampling site with an electronic meter or by a chemical titration.

B. ANALYSES AND MEASUREMENTS CONDUCTED AT THE LABORATORY

1. MICROBIOLOGICAL ANALYSES

Total Coliform

The Membrane Filter (MF) technique is used to obtain an approximation of the concentration of total coliform organisms. These organisms are normal inhabitants of soils and the intestines of man and other warm-blooded animals. They are always present in large numbers in sewage and fecal matter, and are often found in watercourses adjacent to industrial, agricultural and other pollution sources.

Results are reported as MF count per 100 mL of sample.

Background Count

The background count estimates the number of organisms, other than coliforms, that occur in the total coliform analysis of a sample. The results are used in the interpretation of total coliform counts. High background counts are generally indicative of poor water quality.

Fecal Coliform and Fecal Streptococcus (Enterococcus) Organisms

Fecal coliform and Enterococcus organisms are generally found in the alimentary tract of warm-blooded animals. They are indicative of sanitary waste intrusion and/or fecal contamination from warm-blooded animals.

Pseudomonas aeruginosa

Pseudomonas aeruginosa, are pathogens found in sewage, that can be readily isolated. These organisms are sometimes found in bathing waters and are the major pathological agent in otitis externa (ear aches) and other skin infections.

Escherichia Coliform (E. Coli)

E. Coli is the predominant, facultative bacterial species in the large bowel and is thus the coliform most directly related to fecal pollution. E. Coli is occasionally pathogenic to man (e.g. urinary tract infections) but is primarily an indicator organism in water bacteriology.

2. CHEMICAL AND PHYSICAL ANALYSES

Biochemical Oxygen Demand (BOD)

In itself, BOD is not a pollutant and presents no direct harm to the aquatic environment. It is, however, a measure of the unstable organic matter present in water which, through aerobic decomposition, oxidizes to a stable inorganic form utilizing the oxygen resources of a watercourse. The level of BOD is an important parameter in assessing the potential concentrations of dissolved oxygen in water.

Five-day biochemical oxygen demand (BOD₅) is a laboratory measurement of the amount of oxygen consumed in a sample incubated for five days at 20°C.

Total Phosphorus

Phosphorus is a primary nutrient for plant and animal life and like nitrogen passes through cycles of decomposition and photosynthesis. This element is commonly found in nature in the form of inorganic phosphates and organically bound phosphorus. Total phosphorus includes orthophosphate, condensed phosphates and organically bound phosphorus in both the dissolved and particulate form. Untreated or treated sewage, some industrial wastes and agricultural and urban drainage contain significant concentrations of phosphorus.

Although there is no firm criterion for phosphorus, it is generally considered that to eliminate excessive plant growths in rivers and streams, total phosphorus should not exceed 0.03 mg/L. To avoid nuisance concentrations of algae in lakes, average total phosphorus concentrations for the ice free period should not exceed 0.02 mg/L.

Filtered Reactive Phosphate

Filtered reactive phosphate is that phosphorus which passes through a 1-2 micrometre filter and responds to a colorimetric orthophosphate determination. It is a combination of simple orthophosphate and readily hydrolyzed phosphate primarily in the dissolved form.

Filtered reactive phosphate is generally considered to be readily available for aquatic plant growth.

Filtered Ammonia Nitrogen

Filtered ammonia nitrogen (ammonia NH_3 and ammonium NH_4^+) is the soluble product in the anaerobic decomposition of nitrogenous organic matter. It is also formed when nitrites and nitrates are reduced either biologically or chemically. Small amounts of ammonia nitrogen may be taken out of the atmosphere by rain water.

Rivers which are considered unpolluted generally have filtered ammonia levels of less than 0.1 mg/L.

Total Kjeldahl Nitrogen

Total Kjeldahl nitrogen is a measure of the total nitrogenous matter present, excluding nitrate and nitrite. The total Kjeldahl nitrogen concentration, less the ammonia nitrogen concentration, gives a measure of the organic nitrogen present.

Ammonia and organic nitrogen are important in assessing the availability of nitrogen for biochemical utilization. In unpolluted rivers, the normal range for total Kjeldahl nitrogen is 0.1 to 0.5 mg/L.

Filtered Nitrite

Nitrite is an intermediate oxidation product of ammonia and also an intermediate form in the denitrification process from nitrate to nitrogen gas. The significance of nitrites, therefore, varies with their amount, source and relation to other constituents of samples (notably the relative magnitude of ammonia and nitrate present).

Since nitrite is rapidly and easily converted to nitrate, its presence in concentrations greater than a few micrograms per litre is generally indicative of active biological processes in the water.

Filtered Nitrate

Nitrate is the end product of the stabilization of organic nitrogen which occurs primarily through aerobic biochemical processes. Nitrate is usually found in polluted waters that have undergone some degree of self-purification. Nitrates can also occur in watercourses intercepting drainage from fertilized agricultural areas.

Nitrogen in the form of nitrate is readily utilized by aquatic plants and algae. In unpolluted rivers, the nitrate nitrogen concentration is generally less than 0.5 mg/L.

Inorganic Nitrogen

Inorganic nitrogen is a calculated value and represents the sum of the concentrations of filtered ammonia nitrogen and filtered (nitrate plus nitrite) nitrogen.

Organic Nitrogen

Organic nitrogen is a calculated value and represents the difference between the concentrations of total Kjeldahl nitrogen and filtered ammonia nitrogen.

Total Nitrogen

Total nitrogen is a calculated value and represents the sum of the concentrations of total Kjeldahl nitrogen and filtered (nitrate plus nitrite) nitrogen. Nitrogen is a common constituent of decomposition products, treated sewage, fertilizers and industrial discharges. Nitrogen compounds are present in most plant and animal materials.

Solids

Total, suspended and dissolved solids are presented as separate parameters in this report. The solids analyses are gross measurements of the amounts of particulate matter and dissolved materials found in water. Solids enter the watercourse from virtually every source, the most familiar being sewage treatment plant effluents, municipal storm drainage, industrial discharges and erosion.

Solids significantly affect water uses. Highly turbid water is undesirable for municipal and industrial supply, fish and aquatic life, recreation and aesthetics. Suspended solids can also transport significant quantities of organic and inorganic trace contaminants.

Conductivity

The conductivity test provides a measure of the electrolytic properties of water. The presence of dissolved ions (in solution) such as chlorides, sulphates and calcium, renders water conductive.

Conductance, the reciprocal of resistance, is recorded in the unit mho and in order to avoid inconvenient decimals, data are reported in micromhos per cubic centimetre. In many waters there is a direct linear relationship between dissolved solids concentrations and conductivity.

Conductivity serves as a control parameter and is an excellent indicator of water-quality changes since it is relatively sensitive to variations in dissolved-solids concentrations.

Turbidity

The turbidity of water is attributable to suspended and colloidal matter such as micro-organisms, detritus, clay and other mineral substances which reduce clarity and diminish the penetration of light.

Turbidity is undesirable in surface waters used for domestic and industrial supply and for recreation. Often some of the suspended matter has to be removed to prevent interference with disinfection processes and abrasion to equipment. By interfering with the penetration of light, turbidity can seriously affect aquatic biological communities.

Chlorides

Chlorides are found in practically all natural waters. They may be of natural mineral origin but in general the largest contributions can be traced to domestic sewage discharge, municipal storm drainage, road salting, and industrial wastes.

While not harmful to health in moderate quantities, high concentrations of chlorides make water unfit for municipal and industrial supplies and livestock watering. In addition to imparting an objectionable taste to water, high chloride levels are responsible for increased corrosiveness of water. Furthermore, chloride, being toxic to many plants, may render water undesirable for irrigation.

Sulphate

Sulphates may occur naturally in waters and may be contained in industrial wastes. They are produced from the final oxidation stage of sulphides, sulphites and thiosulphates. Sulphates, under anaerobic conditions, can be reduced to hydrogen sulphide which is malodorous (the odour of rotten eggs) and highly corrosive.

High concentrations (between 150 and 500 mg/L) in drinking water may be cathartic to humans.

Sulphide

Sulphide is formed by bacterial reduction of sulphate and organic sulphur compounds under anaerobic conditions. It is therefore, commonly found in domestic wastewater, industrial wastewater, sludges, hypolimnions of stratified lakes and any other aquatic systems where anaerobic conditions prevail. As a result, concentrations in surface waters are negligible.

Sulphide is an important parameter in waste treatment monitoring. Oxidation of sulphide to sulphuric acid in concrete sewer pipes leads to "crown corrosion". Soluble sulphides in excess of 200 mg/L are toxic to bacteria and will inhibit sludge digestion.

Unfiltered Reactive Silicate

Silicon occurs in sand or quartz as silica and as silicates in feldspar, kaolinite and other minerals. Silicon dioxide, or silica, is insoluble in waters or acids, except hydrofluoric acid, but it may occur in natural waters as finely divided or colloidal suspended matter. Silica

is widely employed in industry for making glass, silicates, ceramics, abrasives, enamels, petroleum products, etc.

In concentrations found in natural and treated waters, silica or silicates have no adverse physiological effects. Silicates are essential to the growth of many aquatic organisms.

The data which appear under the heading "Reactive Silicate" should properly be referred to as "Unfiltered Reactive Silicate" and are reported as Silicon (Si). Data in this series of publications prior to 1975 were reported as Silica (SiO_2).

Acidity

Acidity in surface or ground waters may be attributable to natural causes, such as humic acids extracted from swamps or peat beds, or industrial wastes such as pickling liquors, effluent from the manufacture of explosives, acid mine drainage or sulphite waste liquors. It may also be affected by atmospheric inputs.

Acidity is best interpreted in conjunction with the pH and alkalinity, as well as any other analyses which identify the acidic components of water.

Alkalinity

Alkalinity is a measure of a water's capacity to neutralize an acid. The alkalinity of natural waters is caused by three major classes of materials which may be ranked in order of their effect on pH as follows:

1. Hydroxides (rarely present in Ontario)
2. Carbonates
3. Bicarbonates and other salts of weak acids

The alkalinity of water has little sanitary significance but is of importance in water and waste treatment practices. Waters with high alkalinity are undesirable because of their associated excessive hardness.

pH

The symbol pH is used to designate the logarithm (base 10) of the reciprocal of the hydrogen-ion concentration. It is an index of the acidity or alkalinity of the solution. The practical pH range extends from 0, very acidic, to 14, very alkaline, with the middle value of pH 7 corresponding to exact neutrality at 25°C.

The pH is important in determining the treatment of water supplies.

Iron

Iron is one of the most abundant elements in the earth's crust and it is a constituent of many industrial wastes.

When sufficient iron is added to water in the form of salts (chlorides, nitrates, sulphates), ferrous to ferric precipitates (iron hydroxides) tend to form, causing low pH values which are toxic to aquatic life. Iron in water may also result in the growth of iron bacteria causing unpalatable tastes, discolouration of cloths and plumbing fixtures, and the formation of scales in water mains.

Phenols

The phenolic compounds, collectively referred to as phenols, are those hydroxyl derivatives of benzene or its condensed nuclei, which are determined by the 4-amino antipyrine method. The results are reported from many industrial processes and may also be released from aquatic plants and decaying vegetation.

Depending on the concentration, the presence of phenolic compounds may be toxic to fish, and may taint the flesh of fish. Phenols in very minute concentrations will combine with chlorine to produce tastes and odours which are usually described as medicinal or chemical.

Hardness

Water hardness relates to a water's capability to produce lather from soap. The higher the hardness, the less lather will be formed.

Hardness in water is caused by dissolved divalent metal ions, calcium and magnesium being the most common. Natural hardness occurs most frequently in limestone areas. The limestone is dissolved by contact with ground and surface water and releases calcium ions and traces of contaminant metals.

Hard water, though not considered a health hazard, is undesirable for industrial and domestic water supplies because it has a number of detrimental effects, the most common being the formation of scale in boilers, pipes and water heaters; excessive soap consumption in home and commercial laundering; and adverse affects in textile, plating and canning industries.

Results appear under either the heading "Hardness" and "Calculated Hardness", depending on the analytical procedure. The former results are obtained through titration with ethylenedi-aminetetra- acetic acid (EDTA), the latter by calculation from magnesium (Mg) and calcium (Ca) results determined by Atomic Absorption Spectrophotometry (AAS).

Calcium

Calcium is relatively abundant in the earth's crust and readily soluble in water so that calcium salts and calcium ions are among the most commonly encountered substances in water. They may result from the leaching of soil and may be contained in sewage and industrial wastes.

Excessive calcium and magnesium in drinking water have been implicated as factors predisposing to the formation of concretions in the body, such as kidney, or bladder stones. On the other hand, there is also evidence of adverse physiological effects from an insufficiency of calcium in water. The calcium ion is a major contributor to hardness and is often responsible for boiler scale deposits on cooking utensils

and excessive soap requirements in washing and laundering. Where water is used for irrigation, calcium is beneficial to plant growth.

Magnesium

Magnesium is an abundant element and a common constituent of natural waters. Magnesium ranks with calcium as a major cause of hardness. The effects of magnesium of water used for consumption and irrigation are generally the same as those of calcium. Magnesium is considered relatively non-toxic to man and not a public health hazard because before toxic concentrations are reached in water, the taste becomes quite unpleasant.

Colour

Colour in water may be of natural mineral or vegetable origin caused by metallic substances such as iron and manganese compounds, humus material, peat, tannins, algae, weeds, and protozoa. Waters may also be coloured by inorganic or organic soluble wastes from industries, such as steelworks, mining, refining, pulp and paper, chemicals, and others. Returned irrigation water also contributes to colour.

Colour from natural origin is not considered harmful from a health standpoint. However, in domestic water, colour is undesirable from aesthetic considerations.

Potassium

Potassium occurs in many minerals and potassium salts exist in natural waters as a result of contact with potassium-bearing soils and the introduction of certain industrial wastes. The common salts of potassium are highly soluble in water. They resist separation from water by natural processes other than evaporation.

In limited concentrations, potassium is an essential nutrient. Excessive amounts of certain potassium salts in drinking water have detrimental effects on human digestive and nervous systems.

Sodium

Sodium salts are common to all natural waters and may be present in high concentrations in wash waters softened by exchanging calcium and magnesium ions for sodium. Sodium is also found in many industrial process effluents, domestic wastes and salts used in road de-icing.

The presence of sodium salts in drinking water may present a health hazard to a person with circulatory, renal and cardiac problems and may cause digestive problems in animals and otherwise healthy human beings. Concentration of salts such as sodium chloride impact objectionable tastes and may render water unpalatable.

Total Organic Carbon (TOC)

Total organic carbon (TOC), the most significant carbon measurement from a water-quality assessment viewpoint, is the arithmetic difference between total carbon (TC) and total inorganic carbon (TIC).

Total organic carbon usually has a direct relationship with Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) values, but the relationship varies with the composition of the organic material present. The carbon tests are rapid and suitable for the evaluation of organic pollution levels, assessment of waste treatment efficiencies and to a limited extent, the potential demand of a waste discharge on the oxygen resources of a water body.

Dissolved Organic Carbon (DOC)

The organic content of lakes and rivers depends primarily on the products of plants and animals which those water bodies support. Most of the organic carbon in water is composed of humic substances and partly degraded plant and animal materials, some of which is resistant to microbial degradation. Runoff from agricultural land and industrial discharge from industries such as pulp and paper will add organic carbon to the water. The degradation of large amounts of organic matter causes depletion of the dissolved oxygen concentration and hence, organic carbon is also measured on sewage and industrial waste samples. In natural waters, the organic carbon content will usually be less than 30 mg/L.

Chemical Oxygen Demand (COD)

The chemical oxygen demand is used in measuring the strength of sewage and industrial wastes. The major advantage of this test is that laboratory results can be obtained in about three hours compared to five days for the five-day biochemical oxygen demand test. The chief limitation of the COD analysis is its inability to differentiate between biologically oxidizable and biologically inert organic matter. The COD almost always exceeds the biochemical oxygen demand.

Solvent Extractables

The solvent extractable test measures the total quantity of substances present in a water sample that is readily soluble in an appropriate organic solvent. Such substances include fatty acids, petroleum products, oils, greases and resins. They are generally found in effluents of oil refineries, meat packing plants, slaughter houses, dairies, canneries, and a variety of other industries.

Solvent soluble materials greatly increase the oxygen depletion rate in receiving waters and will hinder oxygen exchange with the atmosphere by forming slicks.

Arsenic

Arsenic may occur, naturally, to a small extent, mostly as sulphides and as arsenides of metals. Elemental arsenic is insoluble in water but many of the arsenates are highly soluble. Highest levels of arsenic in Ontario are found in watercourses downstream of wastewater discharges from metal smelting operations.

Arsenic is very toxic to humans and the trivalent forms are largely retained in the body tissues. Low concentrations of arsenic stimulate plant growth but higher concentrations destroy chlorophyll in the foliage.

Mercury

Mercury may occur naturally as a free metal or as mercuric salts, the most common being cinnabar, HgS. Both elemental mercury and HgS are insoluble in water and are not likely to occur as water pollutants. Many synthetic organic salts of mercury are used commercially and these salts are highly soluble in water.

Mercury is cumulative and toxic to humans and can be concentrated and transferred up the food chain to a point where commercial and game fish may become unsuitable for human consumption. Micro-organisms can methylate inorganic mercury under both aerobic and anaerobic conditions to produce a more toxic substance.

Aluminium

Aluminium occurs in many rocks and ores but never as a pure metal in nature. In streams, the presence of aluminium ions may result from industrial wastes or more likely from wash water from water treatment plants.

Aluminium in a public water supply is not considered a public health problem, since no evidence has been found to prove that aluminium in water supplies is harmful to human beings.

Chromium

Few waters contain chromium from natural sources since chromium is generally present in rocks and soils as insoluble chromic oxide which is strongly sorbed to particulate matter. Chromate or dichromate salts are used extensively in metal pickling and plating operations, in anodizing aluminium, in the leather industry as a tanning agent, and in the manufacture of paints, dyes, explosives, ceramics, paper and many other substances. Chromic or chromite salts on the other hand, are used much less extensively being employed as mordants in textile dyeing, in the ceramic and glass industry and in photography. Chromium compounds may be present in wastes from many of the foregoing industries or may be discharged in chromium-treated cooling waters where the chromium is used as a corrosion inhibitor.

There is no evidence that chromium salts are essential or beneficial to human nutrition. Salts of trivalent chromium are not considered to be physiologically harmful; however, large doses of chromates lead to corrosive effects in the intestinal tract and to nephritis. Both the chromic and chromate ions are toxic to plants and interfere with the uptake of essential elements.

Copper

Copper salts occur in natural surface waters in trace concentrations and may occur in industrial waste discharges. Copper is used as an algicide for the control of undesirable algae growth and in the treatment of soils as a fungicide and a pesticide.

Copper compounds are toxic to plants and aquatic life. Prolonged ingestion may cause liver damage in man.

Lead

Some natural waters contain lead in solution. Lead may be introduced into water as a constituent of various wastes including industrial and mining effluents, lead plumbing and automobile exhaust. Certain lead salts, such as acetate and chloride, are readily soluble. However, lead which occurs in the carbonate, hydroxide and sulphate forms is sparingly soluble and will not remain long in natural waters.

Lead is a cumulative poison that tends to be deposited in the bone. The intake that can be regarded as safe cannot be stated definitely because the sensitivity of individuals to lead differs considerably. Studies on fish indicate that in water containing lead salts, a film of coagulated mucus forms over the gills and then the entire body, probably as a result of a reaction between lead and an organic constituent of mucus. The fish then die of suffocation. The toxic effects of lead on fish decreases with increasing hardness and dissolved oxygen.

Cadmium

In the elemental form, cadmium is insoluble in water. It occurs in nature largely as a sulphide salt, greenockite or as a cadmium blend and often as an impurity in zinc-lead ores.

Cadmium salts are cumulative and highly toxic to man having been implicated in some cases of food poisoning. Consumption of cadmium salts causes cramps, nausea, vomiting, and diarrhea. Cadmium affects reproduction in fish and zooplankton; however, the toxic effects vary with species and time of exposure.

Zinc

Generally, zinc occurs only in trace amounts in surface waters. The zinc ion is believed to adsorb strongly and permanently on particulate matter (e.g. silt) which settles out of suspension.

Zinc has no known adverse physiological effects upon man except at very high concentrations. At such concentrations, zinc gives water a milky appearance and causes a greasy film on boiling, thus making it unattractive for domestic water supply. Zinc is toxic to aquatic organisms and its toxicity decreases with increasing hardness.

Manganese

Manganese is similar to iron in that it is found in many industrial wastes and occurs in soils as manganic and manganous compounds. Under anaerobic conditions the manganic ion is reduced to soluble nitrate, sulfate, and chloride salts of manganese and is leached, along with iron, into ground and surface waters. Its presence like iron, may indicate domestic or industrial pollution.

Water with high manganese content is undesirable for its taste, colour and tendency to form deposits on cooking utensils.

Nickel

Nickel in ores and minerals is insoluble but as a salt (nickel ammonium sulphate, nickel nitrate, nickel chloride) is highly soluble. Electroplating wastes may contain substantial amounts of nickel salts.

Nickel and its salts have generally proven to be non-toxic to man even at very high levels. Contact with nickel salt solutions may result in dermatitis and repeated inhalations of nickel compounds can cause lung cancer. Levels of 0.1 mg/L have been reported to adversely affect plant life.

Fluoride

Fluorides in high concentrations are not a common constituent of natural surface waters, but may naturally occur in detrimental concentrations in ground waters.

A condition known as "mottled enamel" (dental fluorosis) may occur when the concentration of fluoride ion in drinking water is in excess of 1.0 mg/L; however, small quantities have proven to be beneficial in reducing tooth decay. Excess concentrations affect animal breeding efficiency and may have detrimental effects on some plants.

Cyanide

Cyanides are likely to occur in effluents from gas works and coke ovens, from the scrubbing of gases produced from blast furnaces, in wastes from the surface cleaning of various metals, and in electroplating processes and other chemical industries.

Cyanide in water is toxic to biological life, the lethal concentration depending on water quality, temperature and type and size of organism.

Cobalt

Cobalt occurs naturally in the minerals cobaltite, smaltite and erythrite. It is widely used in the manufacture of alloys, the tungsten carbide tool industry and as pigments used in glass staining.

Cobalt is an essential element at trace levels for both animals and plant nutrition. It is known to be one of the main constituents of Vitamin B₁₂. Adverse effects due to cobalt are very slight even at high concentrations. No limits have been set on the maximum acceptable concentration for cobalt in domestic water supplies.

3. RADIOCHEMICAL ANALYSES

All elements are made up of atoms, each of which consists of a central nucleus surrounded by a number of electrons. Some nuclei are radioactive; they emit excess energy in the form of ionizing radiation as a result of nuclear disintegrations. The three types of ionizing radiations which are of principal interest in environmental studies are referred to as alpha, beta and gamma radiations.

1. Alpha rays are streams of fast moving helium nuclei. These are particles which can travel only a few centimetres in air and can be stopped by a sheet of paper or a layer of skin.
2. Beta rays are streams of fast moving electrons which are very much lighter than helium nuclei. The maximum range of most common beta rays is a few metres in the air or one to two centimetres in the human body.
3. Gamma rays are highly penetrating electromagnetic radiation of the same family as radio waves and x-rays. Like x-rays, gamma mass rays can pass right through the human body.

The number of nuclear disintegrations occurring in a substance per second is a measure of its radioactivity. The unit of radioactivity used in this report is becquerel (Bq). One becquerel equals one nuclear transformation per second and corresponds to approximately 27 picocuries. Radiological half life is the length of time required for one half of the unstable atom to disintegrate or change (i.e. radioactive decay).

Exposure to radiation is characterized by the transfer of energy to molecules of the cells which make up body tissues and organs. This can affect the normal function of the cells, resulting in damage to the tissues and organs. Exposure to the small doses of radiation which might be encountered in the environment will not result in immediate detectable damage; however, long-term effects may result. These effects are in apparently random occurrence of induced cancers and genetic defects in a small proportion of the exposed population. The numbers of effects induced are considered to be directly proportional to the amount of absorbed radiation.

Gross-alpha

Gross-alpha is a measure of the total radioactivity of all the alpha emitting materials in a sample. Measurements of gross-alpha activity provide useful reference points to enable trends to be detected. However, the results cannot be used to determine radiation dose or

health effects since the short range of alpha particles means that some will not be detected, thereby causing an underestimation of the total activity. Also, the alpha particles may be emissions from a mixture of materials that are radiologically and biologically different.

Gross-beta

Gross-beta is a measure of the total radiation of all the beta emitting materials in a sample. Measurements of gross-beta activity provide useful reference points to enable trends to be detected but cannot be used to determine radiation dose or health effects.

Radium-226

Radium-226 is a naturally occurring alpha-particle emitter formed from the decay of uranium-238 and has a radiological half life of 1602 years.

Uranium-total

Total uranium exists primarily as the isotope uranium-238 with less than 1% occurring as uranium-235. Uranium is a naturally occurring alpha-particle emitter which was formed at the same time as the earth (about 5×10^9 years) and is still present in significant quantities due to its extremely long radiological half-life (4.5×10^9 years).

Cesium-137

Cesium-137 is a beta-particle emitter formed as a fission product in nuclear weapons detonation and atomic reactor operation. Cesium-137 is readily adsorbed and retained by biological systems. Its radiological half life is 30 years.

Cesium-134

Cesium-134 is a beta-particle emitter also formed as a fission product in nuclear weapons detonation and atomic reactor operation. Cesium-134 is of less importance than Cesium-137 as its radiological half-life is only 72 hours.

Cobalt-60

Cobalt-60 is primarily formed in atomic reactor operation due to the neutron activation of trace quantities of cobalt-59 found in steel. Insignificant quantities are also formed from nuclear weapons detonation. Cobalt-60 has a radiological half life of 5.3 years and emits both beta and gamma radiation.

Tritium

Tritium exists fairly uniformly in the environment as a result of natural production by cosmic radiation and residual fallout from nuclear weapons tests. This background level is gradually being increased by the use of nuclear reactors to generate electricity.

Current tritium from the nuclear power industry comprises a small proportion of environmental tritium in comparison with that from nuclear weapons fallout and naturally produced tritium. However, nuclear reactors and fuel-processing plants are localized sources of tritium because of discharges during normal operation. This industry is expected to become the major source of environmental tritium contamination some time in the future if present growth trends continue and nuclear explosion in the atmosphere are not resumed. Tritium is produced in light water nuclear reactors by ternary fission, neutron capture in coolant additives, control rods and plates, and activation of deuterium. About 1% of the tritium in the primary coolant is released in gaseous form to the atmosphere; the remainder is eventually released in liquid waste discharges. Most of the tritium produced in reactors remains in the fuel and is released when the fuel is reprocessed.

Naturally occurring tritium is most abundant in precipitation and lowest in aged water because of its physical decay by beta emission to helium.

Iodine

Iodine is a chemical oxidant. It disinfects in a manner similar to chlorine. Iodine is the least soluble of all the halogens, hence it is the least likely to be hydrolyzed by water. It also has the lowest oxidation potential; that is, reacting more slowly with organic

compounds than chlorine. Because of this stability, iodine does not react with nitrogenous compounds as does chlorine. Iodine remains effective through a wider range than does chlorine; chlorine becomes less stable at pH of 8 as compared to iodine at pH of 10.

4. SYNTHETIC ORGANIC ANALYSES

The synthetic organic compounds referred to in this section are classified as pesticides and industrial chemicals. These compounds contain linked carbon atoms in their chemical structure and are, for the most part, synthesized from common chemicals. Furthermore they may be subdivided into chemical families of compounds sharing common characteristics. For example, organochlorine compounds (chlorinated hydrocarbons) contain chlorine, hydrogen and carbon in their structure; they have a tendency to accumulate in the fatty tissues of animals and are stable compounds (i.e. persistent).

Until recently, only a few classes of compounds such as drugs, food additives and pesticides were controlled by legislation. For example, the only pesticides which may be offered for sale in Ontario are those which have been registered under the authority of the Pest Control Products Act which is administered by Agriculture Canada. The term pesticide includes insecticides, herbicides and fungicides which are chemical compounds used to control insects, weeds or fungi (i.e. "pests") that attack crops, animals and man. In contrast to the regulation of pesticides, thousands of unregistered synthetic organic chemicals are in daily use as raw materials, products and additives. Very little is known about their possible health and environmental effects because of their sheer number and diversity of use. Many are not hazardous, but the adverse effects already encountered by some have created concern for preventative measures of both known and potentially hazardous substances.

Polychlorinated Biphenyls (PCBs)

PCBs are a range of industrial chemicals produced by direct chlorination of biphenyl. The North American products in this family are sold under the name Arochlor. Arochlors are characterized by a four digit number (e.g. Arochlor 1242, Arochlor 1254 of which the last two digits refer to

the weight percentage of chlorine in the products. There are 208 possible compounds which could be formed by this reaction. Each product is a different mixture of up to 100 of these, each with its own unique physical, chemical and biological properties.

The main characteristics of PCBs are their chemical, physical, biological inertness and electrical insulating properties. They have been widely used in transformers, capacitors, as heat exchange fluids, plasticizers, in inks, paint, lubricants, and many other products. Spills and waste disposal practices have resulted in very large inputs of these chemicals to all facets of the environment.

PCBs are lipophylic and thus continuing environmental inputs have led to biological uptake and concentration. Of particular concern are the excessive levels detected in some fish. Levels in water and air to date have not demonstrated a threat to human health, as might arise from fish consumption. PCBs have been shown to be both acutely and chronically toxic, carcinogenic and teratogenic. Limits for human consumption have been set based on tests on monkeys and rats. The present acceptable level of PCBs in fish is 2.0 ppm. However, for protection of the fisheries resource from reproductive failure, 0.1 ppm has been suggested. Long-term use of PCBs, at elevated temperatures, and inefficient incineration of these materials have been shown to produce the highly toxic chlorodibenzofurans, closely related to dioxins.

Trichlorophenoxyacetic Acid (2,4,5-T)

2,4,5-T is a chlorophenoxy acid herbicide. Other members of this family include 2,4-D and 2,4,5-TP which were introduced as selective weed killers at the end of World War II. Their uses include weed control in cereal crops, lawns, along roadsides, hydro and railroad rights-of-way and control of aquatic weeds.

The human toxicity of these herbicides is low; effects on farmstock and wildlife from current environmental levels would appear to be negligible and no discernible toxic effects have been reported in fish at levels below 100 mg/L.

However, 2,3,7,8-tetrachlorodibenzodioxin (TCDD), an extremely toxic compound, has been detected in 2,4,5-T formulations as a by-product of its manufacture, thus raising doubts as to the human safety of the use of 2,4,5-T, and the related herbicide 2,4,5-TP (Silvex). A tolerance level of 0.1 ppm 2,3,7,8-TCDD in 2,4,5-T formulation has been set, but the adequacy of the safety factor is still under discussion.

Pentachlorophenol (PCP)

Pentachlorophenol is used as a herbicide, defoliant, insecticide, fungicide and wood preservative. The salts, esters and ethers of PCP are also effective herbicides.

PCP is considered relatively toxic to wildlife and fish and its presence in water can cause tainting of fish flesh, reducing its palatability. PCP can be harmful to man if inhaled and absorbed through the skin. There is no known antidote to PCP poisoning.

In addition to its inherent toxicity, a further problem is posed by the presence of high chlorinated dioxins, (octachlorodioxin, heptachlorodioxin, hexachlorodioxin) in PCP formulations. Whilst considerably less toxic than 2,3,7,8-TCDD (tetrachlorodibenzodioxin), it has been suggested that these compounds may degrade to 2,3,7,8-TCDD under the influence of sunlight and other environmental conditions.

STATION IDENTIFIER CODES, ABBREVIATED PARAMETER HEADINGS AND QUALIFYING REMARKS CODES

Station Identifier Codes

The station identifier codes which appear in the index and the top right-hand corner of the data pages are numerical descriptions of the sampling station locations and are used primarily for electronic data processing of the water quality data. The eleven digit figure is decoded as follows: the first two digits refer to the terminal basins (see figures 2 and 3), the following four digits refer to the river

basin (each river basin in a terminal basin is assigned a unique number), the next three digits refer to the station number within the river basin and the last two digits refer to the type of sample (e.g. 01-lake sample, 02-stream sample, 82 to 89-composite sample, e.g. 83 - 3 part composite across a station sampling range).

Distance

The distance in kilometres is measured along the centre line of a watercourse to the sampling station location from the junction of the related terminal stream and terminal basin.

Abbreviated Headings

BOW	body of water
STN NO	base station number
LAT	latitude
LONG	longitude
UTM	Universal Transverse Mercator Grid
SAMP DTE DY MO YR	sample date; day, month, year
HOUR LMT	hour(s) local mean time (2400 hour clock)
STN DIST FEET	distance from base station (in feet) (not applicable)
STN BRG	bearing of sampling point (deg N) from base station (not applicable)
SAMP DEPTH MTRS	sample depth (in metres)
PJ	project (not applicable)

Abbreviated Parameter Headings

The alphabetic codes appearing as the parameter headings are a series of unique codes used for computer processing. Each alphabetic code identifies a particular water quality parameter and analytical procedure.

Test Name and Abbreviated Description	Description of Test	Units of Measure
ACDT ACIDITY TOTAL	ACIDITY, TOTAL	MILLIGRAM PER LITRE AS CALCIUM CARBONATE
ALKT ALK TOTAL	ALKALINITY, TOTAL	MILLIGRAM PER LITRE AS CALCIUM CARBONATE
ALUT ALUMINUM UNF. TOT.	ALUMINIUM, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS ALUMINIUM
ASUT ARSENIC UNF. TOT.	ARSENIC, UNFILTERED TOTAL	MILLIGRAM PER LITRE
AS3UR ARSENTE UNF. REAC.	ARSENIC +3 UNFILTERED REAC.	MILLIGRAM PER LITRE AS ARSENIC
AS5UR ARSENATE UNF. REAC.	ARSENIC +5, UNFILTERED REAC.	MILLIGRAM PER LITRE AS ARSENIC
BOD ₅ 5 DAY TOT. DEM.	BOD, 5 DAY, TOTAL DEMAND	MILLIGRAM PER LITRE AS OXYGEN
CAUR CALCIUM UNF. REACT.	CALCIUM, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS CALCIUM
CCNAUR CYANIDE AVAIL UNF. REACT.	CYANIDE, AVAILABLE UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS HYDROGEN CYANIDE
CCNFUR FREE UNF. REACT.	CYANIDE, FREE UNFIL. REACTIVE	MILLIGRAM PER LITRE AS HYDROGEN CYANIDE
CCUT CARBON UNF TOT.	CARBON, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS CARBON
CDUT CADMIUM UNF. TOT.	CADMIUM, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS CADMIUM

Test Name and Abbreviated Description	Description of Test	Units of Measure
CLIDUR CHLORIDE UNF. REAC.	CHLORIDE, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS CHLORINE
COD CHEM. OX. DEMAND	CHEMICAL OXYGEN DEMAND	MILLIGRAM PER LITRE AS OXYGEN
COLAP COLOUR APPARENT	COLOUR, APPARENT	HAZEN COLOUR UNIT
COLTR COLOUR TRUE	COLOUR, TRUE	HAZEN COLOUR UNIT
COND25 CONDUCT. 25C	CONDUCTIVITY AT 25°C	MICROMHOS/CM (CONDUCTIVITY) AT 25 DEGREES CENTIGRADE
COUT COBALT UNF. TOT.	COBALT, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS COBALT
CO60 COBALT 60	COBALT 60	BECQUEREL PER LITRE
CRUT CHROMIUM UNF. TOT.	CHROMIUM, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS CHROMIUM
CS134 CESIUM 134	CESIUM 134	BECQUEREL PER LITRE
CS137 CESIUM 137	CESIUM	BECQUEREL PER LITRE
CUUT COPPER UNF. TOT.	COPPER, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS COPPER
DO DISSOLVED OXYGEN	DISSOLVED OXYGEN	MILLIGRAM PER LITRE AS OXYGEN

Test Name and Abbreviated Description	Description of Test	Units of Measure
DOC CARBON DISSOLVED ORGANIC	CARBON, DISSOLVED ORGANIC	MILLIGRAM PER LITRE AS CARBON
ECMF ESCH IA COLI MF	ESCHERICHIA COLIFORM, MEMBRANE FILTRATIONS TECHNIQUE	COUNTS PER 100 ML
FCMF FECAL COLIFORM MF	FECAL COLIFORM MEMBRANE FILTRATION TECHNIQUE	COUNTS PER 100 ML
FEUT IRON UNF. TOT.	IRON, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS IRON
FFIDUR FLUORIDE UNF. REAC.	FLUORIDE, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS FLUORINE
FSMF FECAL STREPCUS MF	FECAL STREPTOCOCCUS, MEMBRANE FILTRATION TECHNIQUE	COUNTS PER 100 ML
FWFLOW STREAM FLOW	STREAMFLOW	CUBIC METRE (1000L) PER SECOND
FWPH PH FIELD	PH, FIELD	NEGATIVE LOGARITHM OF HYDROGEN ION CONCENTRATION
FWSTRC STREAM COND.	STREAM CONDITION	NOT APPLICABLE
FWTEMP WATER TEMP.	TEMPERATURE, WATER	DEGREES CELSIUS

Test Name and Abbreviated Description	Description of Test	Units of Measure
GACF GROSS ALPHA CT. FILTERED	GROSS ALPHA CT., FILTERED	BECQUEREL PER LITRE
GACP GROSS ALPHA CT UNDISSOL.	GROSS ALPHA CT., UNDISSOLVED	BECQUEREL PER LITRE
GBCF GROSS BETA CT. FILTERED	GROSS BETA CT., FILTERED	BECQUEREL PER LITRE
GBCP GROSS BETA CT. UNDISSOL.	GROSS BETA CT., UNDISSOLVED	BECQUEREL PER LITRE
HARDT HARDNESS TOTAL	HARDNESS, TOTAL	MILLIGRAM PER LITRE AS CALCIUM CARBONATE
HGUT MERCURY UNF. TOT.	MERCURY, UNFILTERED TOTAL	MICROGRAM PER LITRE AS MERCURY
HH3 TRITIUM HYDROG-3	TRITIUM, (HYDROGEN 3)	BECQUEREL PER LITRE
II131 IODINE 131	IODINE 131	BECQUEREL PER LITRE
KKUR POTASSIUM UNF. REAC.	POTASSIUM, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS POTASSIUM
MGUR MAGNESIUM, FIL. REAC.	MAGNESIUM, FILTERED REACTIVE	MILLIGRAM PER LITRE AS MAGNESIUM
MNUT MANGANESE, UNF. TOT.	MANGANESE, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS MANGANESE

Test Name and Abbreviated Description	Description of Test	Units of Measure
NAUR SODIUM UNF. REAC.	SODIUM, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS SODIUM
NIUT NICKEL UNF. TOT.	NICKEL, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS NICKEL
NNHTFR NH3-N TOTAL FIL. REAC.	AMMONIUM, TOTAL FILTERED REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
NNKI TOTAL N	TOTAL NITROGEN: SUM OF NITRATE NITRITE AND KJELDAHL-NITROGEN	MILLIGRAM PER LITRE AS NITROGEN
NNKUR KJELDAHL ORGANIC UNF. REAC.	KJELDAHL-NITROGEN, ORGANIC UNFILTERED REACTIVE	MILLIGRAM PER LITRE
NNOTFR NO2+NO3N FIL. REACT.	NITRATES, TOTAL FILTERED REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
NNOTUR NO1+NO3N UNF, REAC.	NITRATES, TOTAL UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
NNO2FR NO2-N FIL. REAC.	NITRITE, FILTERED REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
NNTIFR INORG. N. TOTAL FIL. REAC.	NITROGEN, TOTAL INORGANIC FILTERED REACTIVE	MILLIGRAM PER LITRE
NNO2UR NO2-N UNF. REAC.	NITRITE, UNFILTERED REACTIVE	MILLIGRAMS PER LITRE AS NITROGEN

Test Name and Abbreviated Description	Description of Test	Units of Measure
NN03FR N03-N FILT. REAC.	NITRATE, FILTERED REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
NN03UR N03-N HNF. REAC.	NITRATE, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
NNTKUR K'DAHL N TOTAL UNF. TOT.	NITROGEN, TOTAL KJELDAHL UNFIL. REACTIVE	MILLIGRAM PER LITRE AS NITROGEN
PBUT LEAD UNF. TOT.	LEAD, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS LEAD
pH	pH (-LOG H+CONC), LAB.	NEGATIVE LOGARITHM OF HYDROGEN ION CONCENTRATION
PHNOL PHENOLS UNF-REAC	PHENOLICS, UNFILTERED REACTIVE	MICROGRAM PER LITRE AS PHENOL
PP04FR P04 FIL. REAC.	PHOSPHATE, FILTERED REACTIVE	MILLIGRAM PER LITRE AS PHOSPHORUS
PP04UR P04 UNF. REAC.	PHOSPHATE, UNFILTERED REACTIVE	MILLIGRAMPER LITRE AS PHOSPHORUS
PPUT PHOSPHOR UNF. TOT.	PHOSPHORUS, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS PHOSPHORUS
PSAMF PSEUDOMN AERUG, MF	PSEUDOMONAS, AERUGINOSA MEMBRANE FILTRATION TECHNIQUE	COUNTS PER 100 ML
P1PCBT PCB TOTAL	POLYCHLORINATED BIPHENOLS, TOTAL	MICROGRAM PER LITRE
P3245T 2,4,5-T	2,4,5-Trichlorophnoxyacetic	MICROGRAM PER LITRE

Test Name and Abbreviated Description	Description of Test	Units of Measure
RA226F RADIUM 226 FIL.	RADIUM-226, FILTERED	BECQUEREL PER LITRE
RA226T RADIUM 226 TOT.	RADIUM-226, TOTAL	BECQUEREL PER LITRE
RSF RESIDUE FILTERED	RESIDUE, FILTERED	MILLIGRAM PER LITRE
RSFRAD RESIDUE FILTERED RADIOLOG	RESIDUE, FILTERED RADIOLOGICAL	MILLIGRAM PER LITRE
RSP RESIDUE PARTIC.	RESIDUE, PARTICULATE	MILLIGRAM PER LITRE
RSPRAD RESIDUE PARTIC. RADIOLOG	RESIDUE, PARTICULATE RADIOLOGICAL	MILLIGRAM PER LITRE
RST RESIDUE TOTAL	RESIDUE, TOTAL	MILLIGRAM PER LITRE
SAMPLE NUMBER	SAMPLE NUMBER, FIELD	NOT APPLICABLE
S103UR SILICATE UNF. REAC.	SILICATES, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS SILICON
SOLEXT SOLVENT EXTRACT.	SOLVENT EXTRACTABLES	MILLIGRAM PER LITRE
SSIDUR SULPHIDE UNF. REAC.	SULPHIDE, UNFILTERED REACTIVE	MILLIGRAM PER LITRE
SS04UR SULPHATE UNF. REAC.	SULPHATE, UNFILTERED REACTIVE	MILLIGRAM PER LITRE AS SULPHATE

Test Name and Abbreviated Description	Description of Test	Units of Measure
TCMF COLIFORM TOTAL MF	COLIFORM, TOTAL MEMBRANE FILTRATION TECHNIQUE	COUNTS PER 100 ML
TCMFBK COLIFORM TOTAL MF BCKGRD	COLIFORM, TOTAL MEMBRANE FILTRATION TECHNIQUE BACKGROUND	COUNTS PER 100 ML
TURB TURB'ITY	TURBIDITY	FORMAZIN TURBIDITY UNIT
UU238 URANIUM 238	URANIUM 238	MILLIGRAM PER LITRE
X3PCPH PENTACHL PHENOL	PENTACHLOROPHENOL	NANORGRAMS PEC LITRE
ZNUT ZINC UNF. TOT.	ZINC, UNFILTERED TOTAL	MILLIGRAM PER LITRE AS ZINC

OTHER ABBREVIATIONS

ARITH MEAN	arithmetic mean
AVE.	avenue
AVG OR GEOM MN	arithmetic mean or geometric mean (denoted by *)
BLVD.	boulevard
BR.	branch, bridge or brook
CORP.	corporation
CAN.	Canadian
C.N.R.	Canadian National Railway
CO.	county or company
CONC.	concession
C.P.R.	Canadian Pacific Railway
CR.	Creek
DR.	drive
FT.	feet
GEOM MEAN	geometric mean
HWY.	highway
JNT.	junction
L.	left
MG	milligram(s)
MG/L or mg/L	milligrams per litre
ML	millilitre(s)
N.	north
NG/L	nanogram(s) per litre
NO/OF SAMPLES	number of samples
PT.	part or point
Q.E.W.	Queen Elizabeth Way
R.	river or right
RD.	road
R.R.	railroad
RW.	railway
S.	south
STD DEV	standard deviation
S.T.P.	sewage treatment plant
TWP.	township
UG/L	micrograms per litre
W.P.C.P.	water pollution control plant
WW.	water-works

An "Exponent" is used to move the decimal point to the right when the result is greater than 7 digits or to the left if the result is measured to more than three decimal places.

EXPONENT = + 4	multiple result by	10,000
= + 3	" " "	1,000
= + 2	" " "	100
= + 1	" " "	10
= - 1	divide result by	10
= - 2	" " "	100
= - 3	" " "	1,000
= - 4	" " "	10,000

ANALYTICAL TECHNIQUES USED TO MEASURE WATER QUALITY

Microbiological Parameters

Total Coliforms	Membrane Filtration
Fecal Coliforms	Membrane Filtration
Fecal Streptococcus	Membrane Filtration
Pseudomonas Aeruginosa	Membrane Filtration
Background Count	Membrane Filtration

Analytical Technique

Chemical and Physical Parameters

Alkalinity	Auto* fixed endpoint titration
Ammonia-N (filtered total)	Auto modified Berthelot reaction
Arsenic	Flameless AAS**; colourimetry
Cadmium	AAS
Calcium	AAS; EDTA titrimetric
Carbon	Auto oxidation, colourimetry
Chloride	Auto potentiometric titration; Auto FeCNS
Chromium	AAS; colourimetry
Conductivity	25°C thermostated conductivity meter
Copper	AAS
Iron (total)	AAS; Auto TPTZ colourimetry
Lead	AAS
Magnesium	AAS; calculation from hardness, Ca
Manganese	AAS; Auto formal doxine colourimetry
Mercury	Flameless AAS
Nickel	AAS
Nitrate + Nitrite-N (filtered)	Auto hydrazine reduction-diazotization
Kjeldahl-N	Digest, Auto modified Berthelot reaction
Phosphate-P (filtered reactive)	Auto molybdenum blue-ascorbic acid
pH	Potentiometric-glass electrode
Phenolics-reactive	Auto distillation-4AAP
Phosphorus-total	Digest, Auto molybdenum blue-ascorbic acid
Phosphorus-filtered total	Digest, Auto molybdenum blue-ascorbic acid
Potassium	AAS

Selenium
Silicates-reactive
Sodium
Solids-suspended
Sulfate
Turbidity
Zinc

Fluorimetry
Auto molybdenum blue-ascorbic acid
AAS
Gravimetric
Auto MTB colourimetry; Ion Chromatography
Nephelometry, formazin standard
AAS

Radiochemical Parameters

Gross alpha

Nuclear disintegrations count from
evaporated residues

Gross beta

Nuclear disintegrations count from
evaporated residues

Radium-226

Diemination technique

Uranium-total

Fluorometric technique

Cesium-137

Gamma spectrometry

Cesium-134

Gamma spectrometry

Cobalt-60

Gamma spectrometry

Synthetic Organic Parameters

PCB

Solvent extraction, gas chromatography

2,4,5-T

Solvent extraction, gas chromatography

PCP

Solvent extraction, gas chromatography

* Automated instrumentation

** Atomic Absorption Spectrophotometry

GLOSSARY OF TERMS

Arithmetic Mean

- The nth quotient of the summation of n observations. The equation for the arithmetic mean (\bar{X}) can be expressed as:

$$\bar{X} = \frac{X_1 + X_2 + X_3 + \dots + X_n}{n}$$

Detection Limit

- The amount of analyte required to be present to ensure that when it is 'absent' it will not be reported as 'present'.

Geometric Mean

- The nth root of the product of n observations. The equation for the geometric mean (G_x) can be expressed as:

$$G_x = \sqrt[n]{X_1 \times X_2 \times \dots \times X_n}$$

or

$$G_x = \text{antilog} \frac{(\log X_1 + \log X_2 + \dots + \log X_n)}{n}$$

Standard Deviation

- A measure of variability or dispersion. For a set of n observations, X_i ; $i = 1, \dots, n$. The standard deviation is given as:

$$S = \sqrt{\Sigma(x_i - \bar{x})^2 / (n - 1)}$$

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ABBREVIATIONS AND REMARKS USED ON REPORTS

ABBREVIATIONS USED:

BTH GRAB	BOTTOM GRAB SAMPLE
CORE	BOTTOM CORE SAMPLE
CNT LOW	BACTERIA COUNT UNACCEPTABLE
DATA AVL	DATA NOT STORED IN THIS SYSTEM BUT IS AVAILABLE
DC	DEPTH COMPOSITE SAMPLE
DD	DAY
ET	END TIME
EXP	PRECIPITATING AT EXPOSURE (FOR PRECIP. SAMPLES)
GC	GAUGE DEPTH (FOR PRECIP. SAMPLES)
I	DEPTH INTERVAL (IN METERS) WHEN ASSOCIATED WITH DC TIME INTERVAL (IN HOURS) WHEN ASSOCIATED WITH TC
ID	INITIAL DATE (SET-UP DATE FOR PRECIP. SAMPLES)
IT	INITIAL TIME (SET-UP TIME FOR PRECIP. SAMPLES)
LAT	LATITUDE
LONG	LONGITUDE
LMT	LOCAL MEAN TIME
L01	LOW VOLUME SEQUENTIAL SAMPLE
L02	LOW VOLUME NUTECH SAMPLE
MM	MONTH
N	NUMBER OF SAMPLES (USED FOR DC, TC AND CORE SAMPLES)
DRY	PRECIPITATION SAMPLE (DRY ONLY)
WET	PRECIPITATION SAMPLE (WET ONLY)
BULK	PRECIPITATION SAMPLE (BULK)
GRND	PRECIPITATION SAMPLE (ON GROUND SNOW COURSE)
REM	PRECIPITATING AT REMOVAL (FOR PC SAMPLES 0,1,2,3)
SD	START DEPTH
ST	START TIME
SED CORE	SEDIMENT CORE SAMPLE (DEPTH FROM AND TO MEASURED IN CM)
SED GRAB	SEDIMENT GRAB SAMPLE (DEPTH FROM AND TO MEASURED IN CM)
WLE	WATER LAYER - WHOLE LAKE COMPOSITE
EPI	WATER LAYER - EPIIMNHION ZONE
MET	WATER LAYER - METALIMNHION ZONE
HYP	WATER LAYER - HYPOLIMNHION ZONE
EUP	WATER LAYER - EUPHOTIC ZONE
GEN	WATER LAYER - GENERAL LAYER
TC	TIME COMPOSITE SAMPLE
TNTC	BACTERIA TOO NUMEROUS TO COUNT
V	VOLUME WHEN ASSOCIATED WITH L01 AND L02 SAMPLES
YY	YEAR

NOTE:

ONE SAMPLE DESIGNATES DATA ASSOCIATED WITH A LOCATION AT ONE POINT IN TIME

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REHARK	COMMENT CODE
<	ACTUAL RESULT < THAN REPORTED VALUE	PE
<=>	APPROXIMATE RESULT	
<E	NO RESP.: (EXCESS DIL'N) MIN. VALUE	PE
<N	NON-DETECTED	PE
<R	DETECT LIMIT REPORT: VALUE < LIMIT	PE
<S	TRACE RESP.: < THAN VALUE REPORTED	PE
<T	LOW VALUE TENTATIVE: FOR INFO ONLY	PT
<W	0 VALUE IS MIN. MEASURABLE AMOUNT	PT
IAA	NO DATA: ANAL. REQ ABSENT-AMBIGUOUS	
IAD	NO DATA: ANOMALOUS DATA WITHDRAWN	
IAI	ADDITIONAL INFORMATION AVAIL AT LAB	
IAL	NO DATA: AL NOT DONE, PH > 5.5	
IAM	NO DATA: PH > 7	
IAR	SEE ATTACHED REPT: NO NUMERIC VALUE	
IAM	NO DATA: ANALYSIS WITHDRAWN	
IBC	NO DATA: BACKGRND COLOUR INTERFERES	
IBL	NO DATA: UNRELIABLE BLANK	
IBN	NO DATA: BACKGND TO NUMEROUS TO CNT	
IBT	NO DATA: SAMPLE BROKEN IN TRANSIT	
ICA	NO DATA: CARBONATE NOT DONE, PH>5.0	
ICC	COURT CASE: RESULTS REPT. ELSEWHERE	
ICR	COULD NOT PERFORM CONFIRMING REANAL	
ICS	NO DATA: CONTAMINATION SUSPECTED	
ICU	TYPICAL/TOTAL COLONY CNT UNSUITABLE	
IDD	SAMP. SUBM. AS DUP. FOUND TO DIFFER	
IDI	NO DATA: SAMPLE DISCARDED IN ERROR	

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REMARK	COMMENT CODE
EF	NO DATA: LABORATORY EQUIP. FAILURE	
EP	NO DATA: EXCESS. PRESERVATIVE USED	
FC	NO DATA: FOIL CAP CONTAMINATED SAMP	
FF	NO DATA: FIELD FILTERED SAMP REQUIRED	
GL	NO DATA: GREEN LABEL REQ ON BOTTLE	
HB	HIGH BACKGND ABSORBANCE IN EXTRACT	
HI	RERUN: NO VALUE, OFFSCALE HIGH	
IC	NO DATA: IMPROPER CONTAINER	
IF	NO DATA: INVALID FILTER-NO AIR VOL	
IL	NO DATA: SAMPLE INCORRECTLY LABELED	
IM	INTERNAL LAB MEMO; FOR LAB USE ONLY	
IP	NO DATA: INSUFFICIENT PRESERVATIVE	
IR	INSUFFICIENT SAMP FOR REPEAT ANALY	
IS	NO DATA: INSUFFICIENT SAMPLE	
IY	NO DATA: INVALID SAMPLE	
LA	SAMPLE SPOILED IN LAB ACCIDENT	
LC	NO DATA: LAB CAPACITY EXCEEDED	
LD	NO DATA: TEST QUEUED: SAMP DISCARDED	
LO	RERUN: NO VALUE, OFFSCALE LOW	
LP	NO DATA: PERISHABLE TEST QUEUE LATE	
MS	SAMP TOO COMPLEX REFERRED TO HS GRP	
NA	NO AUTHORIZATION TO PERFORM ANALY	
NE	SUBM SHEET MISPLACED - NOT ENTERED	
NF	INFORMATION NOT REC'D FROM SUBMITTOR	
NI	NO DATA: SAMP NOT STORED IN ICE	

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REMARK	COMMENT CODE
INP	NO DATA: NO APPROP. PROCEDURE AVAIL	
INR	NO DATA: SAMPLE NOT RECEIVED AT LAB	
INS	NO DATA: NOT EQUIP. TO ANALY SAFELY	
INT	NO DATA: NO TIME RECORDED	
IOC	NO DATA: ORGANIC CARBON CONTENT>17%	
IOF	SLUDGE SAMP DISCARD:BOTTLE OVERFILL	
IOP	NO DATA: OBSCURED PLATE	
IOS	NO DATA: OPTIONAL SAMPLE	
IOT	SAMPLE OVERTITRATD:NO REPEAT POSBLE	
IPE	PROCEDURE ERROR: SAMP NOW DISCARDED	
IPH	SAMP PH OUTSIDE VALID RANGE	
IPH	NO DATA: PIECE MISSING	
IPR	NO DATA: PRESERVATIVE REQUIRED	
IPU	NO DATA:VSAMPLE PRESUMED UNSTERILE	
IQU	NO DATA: QUALITY CONTROL UNACCEPT.	
IRC	RESULT CHANGED: REPORT REVISED	
IRD	SEE ATTCH. REPT:NO NUM VALUE:DIOXIN	
IRE	NO DATA: SAMP CONTAINER RECV. EMPTY	
IRI	SEE ATTCH. REPT:NO NUM VALUE:ITCS	
IRL	RESULT FORTHCOMING FROM RAD. LAB	
IRM	SEE ATTCH. REPT:NO NUM VALUE:MICRO	
IRN	SEE ATTCH. REPT FOR NUMERIC RESULT	
IRO	SEE ATTCH. REPT:NO NUM VALUE:OTCS	
IRP	SEE ATTCH. REPT:NO NUM VALUE:PEST	
IRR	NO DATA: RERUN HAS BEEN INITIATED	

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REMARK	COMMENT CODE
RT	SAMPLE NOT REFRIGERATED IN TRANSIT	
RW	SEE ATTCH. REPT:NO NUM VALUE:WQS	
SD	NO DATA: SAMPLE DECOMPOSED	
SE	SAMPLE EXAMINED: SEE OTHER RESULTS	
SF	NO DATA: SAMPLE RECEIVED FROZEN	
SL	NO DATA: SAMP ARRIVED LATE FOR ANAL	
SM	NO DATA: SAMPLE MISSING:LOST IN LAB	
SS	SEPARATE SAMP, PROPER. PRESERVE REQ	
TE	TURB LIMIT OF APP COLOR TEST EXCEED	
TF	NO DATA: TORN FILTER	
TH	TURB EXCEEDED RANGE OF INSTRUMENT	
TN	NO DATA: TOO NUMEROUS TO COUNT	
TU	NO DATA: ANALY TEMPORARILY UNAVAIL.	
TW	NO DATA: TARE WT. > LOADED WT.	
TX	NO DATA: TIME LIMIT EXPIRED	
U	UNSUITABLE FOR ANALYSIS	
UB	BROKEN SAMPLE CONTAINER	
UD	INSUFFICIENT SAMPLE	
UE	NO DATA: UNCORRECTABLE ERROR	
UI	NO DATA: UNDETERMINED INTERFERENCE	
UR	NO DATA: UNPRESERVED SAMP REQUIRED	
VE	INSUFFICIENT SAMP:VISUAL EST:RSP<15	
VU	NO DATA: VALUES USED IN CACL UNVAIL	
WP	NO DATA: WRONG PRESERVATIVE USED	
12	NO DATA: SAMPLE AGE EXCEEDS 12HR	

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REMARK	COMMENT CODE
72	NO DATA: SAMPLE AGE EXCEEDS 72HR	
!BT	NO DATA: SAMPLE BROKEN IN TRANSIT	
>	ACTUAL RESULT > THAN REPORTED VALUE	PE
>SF	ACTUAL MASS > SIZED FIBRE MASS	PE
A>	APROX RSLT:EXCEED NORMAL RNGE LIMIT	
AAI	ADDITIONAL INFO AVAILABLE FROM LAB	
AID	APPROX VALUE: INSUFFICIENT DILUTION	
AIP	ANALYSIS IN PROGRESS	
ALO	TOO ORGANIC:4:1 SOL'N:SOIL RATIO	
APD	ANALYSIS PERFORMED AT DORSET LAB	
BPS	RESULTS BIASED LOW DUE TO LONG STOR	
C	BACKGROUND COUNT TO NUMEROUS	
CIC	POSSIBLE CONTAM DUE TO IMPROPER CAP	
CHS	IDENTITY CONFIRMED BY GC/MASS SPEC	
CRO	CALCULATED RESULT ONLY	
DCC	SAMPLE KNOWN TO CONTAIN CARCINOGENS	
DCN	SAMPLE KNOWN TO CONTAIN CYANIDE	
DCP	DANGEROUS CONSTITUENTS PRESENT	
DUP	DUPLICATE	
E	ESTIMATED OR COMPUTED VALUE STORED	
EBR	NO RESULT: BOTTLE RECEIVED EMPTY	
EDC	EXCEEDS 1978 DRINK WATER QUAL CRIT	
EY	ESTIMATED VALUE - TARE WT UNVAIL.	
FAN	FRACTION ANALY: NON-AQUEOUS PHASE	
FAP	FRACTION ANALY: PARTICULATE ONLY	

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REMARK	COMMENT CODE
FBA	LAB STAFF:FILT.WHOLE SAMP BEFORE AN	
HRF	SUSPECTED HIGH RESULT:IRON PRECIP	
LPI	LABELS PROBABLY INTERCHANGED	
M	MANUALLY ANALYSED	
NAF	NOT ALL REQUIRED TESTS FOUND	
NED	NOT ENOUGH DATA	
NNN	NOTE: CORRECTED VALUE	
NSS	NO SUITABLE SAMPLE	
NTR	NO TIME RECORDED: ANAYL. PERFORMED	
PFS	TEST PERFORMED ON PREV FROZEN SAMP	
PHA	PH ADJUSTED BEFORE ANALYSIS	
PLD	PASSIVE LOADING	
PNF	TEST PERFORMED ON NON-FROZEN SAMPLE	
PNS	TEST PERFORMED ON UNPRESERVE SAMPLE	
PPS	TEST PERFORMED ON PRESEVERED SAMPLE	
PS2	PCB RESEM.MIX AROCLR 1242 1245 1260	
P20	PCB RESEMBLED MIX AROCLOR 1242 1260	
P21	PCB RESEMBLED AROCLOR 1221	
P24	RESEMBLED MIX: AROCLOR 1242 AN 1254	
P28	RESEMBLED MIX: AROCLOR 1242 AN 1248	
P40	RESEMBLED MIX: AROCLOR 1254 AN 1260	
P42	PCB RESEMBLED AROCLOR 1242	
P48	PCB RESEMBLED AROCLOR 1248	
P54	PCB RESEMBLED AROCLOR 1254	
P60	PCB RESEMBLED AROCLOR 1260	

ABBREVIATIONS AND REMARKS USED ON REPORTS

INDIVIDUAL TEST VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

REMARK	MEANING OF REMARK	COMMENT CODE
P84	RESEMBLED MIX: AROCLOR 1248 AN 1254	
R24	REPEAT: 24HR BETWEEN SAMP AND ANAL	
R48	REPEAT: 48HR BETWEEN SAMP AND ANAL	
R72	REPEAT: 72HR BETWEEN SAMP AND ANAL	
SD	SAMP SUBM AS DUPLIC FOUND TO DIFFER	
SIL	SAMP INCORRECTLY LABELLED	
SPH	SATURATED PASTE PH REPT:HIGH ORGAN.	
SPL	SEVERAL PEAKS,LARGE,NOT PRIORITY	
SPS	SEVERAL PEAKS,SHALL,NOT PRIORITY	
STA	SAMP TOO OLD FOR RE-ANALYSIS	
STC	SAMP TOO COMPLEX FOR THIS METHOD	
TAF	TRACE AMOUNT FOUND	
U	UNRELIABLE RESULT	
URD	RESULT MAY BE LOW: UNDISOLVE PART.	
WSB	WARNING-HEAVY SILT IN SAMP BIAS RES	
WSD	WRONG SAMP DESCRIPTION ON BOTTLE	
WST	WET SAMP MASS USED:RESLT REPT HG/KG	
X1	DILUTD BY 10 DETECT LINT 10X NORM	
X2	DILUTD BY 100 DETECT LINT 100X NORM	
X3	DILUTD BY 1000 DECT.LINT 1000X NORM	
24P	P-A BOTTLE POSITIVE AFTER 24 HOURS	
48P	P-A BOTTLE POSITIVE AFTER 48 HOURS	
72P	P-A BOTTLE POSITIVE AFTER 72 HOURS	
96P	P-A BOTTLE POSITIVE AFTER 96 HOURS	
99P	P-A BOTTLE POSITIVE AFTER 120 HOURS	

ABBREVIATIONS AND REMARKS USED ON REPORTS

COMPUTED VALUES MAY BE QUALIFIED BY ONE OF THE FOLLOWING REMARKS:

<A VALUE WITH A REMARK WHICH HAS A
 COMMENT CODE OF PT (AS ABOVE) USED IN
 COMPUTATIONS

NOTE: VALUES WITH COMMENT CODE OF PE
 ARE NOT USED IN COMPUTATIONS

REMARK CODES APPEAR TO THE RIGHT OF THE VALUE I.E. 435.56<T

III

1983 WATER QUALITY DATA REGION 4

1

B.O.W./ SITE: CONSECON CREEK
 SAMPLE POINT: AT MILL DAM CONSECON
 STATION TYPE: RIVER

STATION ID: 06-0157-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: CONSECON CREEK

STORET CODE: 02
 004
 2640

LAT: 43 59 40.56 LONG: 077 31 20.29

U T M: 18 0297750.0 4874150.0 4

REGION: 04

DISTANCE: 0.322

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
		M		AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830125	1020	17805	0101	195.9	0.001<	387.0	0.029	11.00	0.045	6 8	3.0
830222		17813	0101	176.3		357.0		10.00	0.060	6 8	10.5
830329	1015	17821	0101	174.9	0.001<	354.0	0.012	12.00	0.025<T	6 8	3.0
830503	1020	17829	0101	172.8	0.001<	346.0	0.002	7.00	0.030<T	8	14.5
830531	1110	17837	0101	166.0	0.001<	325.0	0.004	10.00	0.060	6 8	17.0
830628	0940	17845	0101	117.1	0.001<	243.0	0.005	7.00	0.140	6 8	22.0
830726	1015	17853	0101	102.0	0.001<	216.0	0.001	8.00	0.090	6 8	21.0
830830	1020	17861	0101	112.9	0.001<	237.0	0.001	4.00	0.075	6 8	25.0
831003	1110	17869	0101	127.6	0.001<	265.0	0.002	8.00	0.060	6 8	19.0
831025	1036	17877	0101	125.9	0.001<	279.0	0.002		0.090	8	9.0
831129	1035	17885	0101	148.3	0.001<	321.0	0.002	3.00	0.045	6 8	3.5
MAXIMUM		0.30		195.9		387.0	0.029	12.00	0.140		25.0
ARITH MEAN		0.30		147.2		302.7	0.006	8.00	0.065<A		13.4
GEOM MEAN				144.1		297.6	0.003	7.41	0.059<A		10.4
MINIMUM		0.30		102.0		216.0	0.001	3.00	0.025		3.0
STD DEV (GEOM *)				31.6		57.2	0.009	2.91	0.033<A		8.1
# SAMP IN STATISTICS		11		11		11	10	10	11		11
% SAMP (EXCLUDED)											
*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HOUR	UNF. TOT.	UNF. TOT.		UNF-REAC	UNF. TOT.		UNF. TOT.			
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	TURB*ITY	MG/L			
		AS NI	AS PB		PHENOL	AS P	FTU	AS ZN			
830125	1020	0.041	0.003<	8.15	0.2<W	0.016	0.73	0.012			
830222		17813		8.13		0.012	0.84				
830329	1015	17821	0.002	8.34		0.019	1.09	0.005			
830503	1020	17829	0.002<	7.93	0.4<T	0.123	0.75	0.002			
830531	1110	17837	0.002<	8.10	0.2<W	0.024	0.86	0.006			
830628	0940	17845	0.002<		1.8	0.043	1.70	0.001<			
830726	1015	17853	0.002<	7.66	1.2	0.029	2.20	0.001			
830830	1020	17861	0.002<	7.80	0.4<T	0.034	0.96	0.002			
831003	1110	17869	0.002<	8.10	0.2<W	0.029	1.15	0.002			
831025	1036	17877	0.002<	8.11	0.4<T	0.031	1.70	0.002			
831129	1035	17885	0.002<	8.09	0.2<T	0.026	1.06	0.002			

(CONT'D)

1983 WATER QUALITY DATA REGION 4

2

B.O.W./ SITE: CONSECON CREEK
 SAMPLE POINT: AT MILL DAM CONSECON
 STATION TYPE: RIVER

STATION ID: 06-0157-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: CONSECON CREEK

STORET CODE: 02
 004
 2640

LAT: 43 59 40.56 LONG: 077 31 20.29 U T M: 18 0297750.0 4874150.0 4 REGION: 04 DISTANCE: 0.322

*INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HOUR LMT	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L
YYMMDD	NUMBER	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
		MAXIMUM	0.041	0.005	8.34	1.8	0.123	2.20
		ARITH MEAN	0.021	0.005	8.04	0.6<A	0.035	1.19
		GEOM MEAN			8.04	0.4<A	0.029	1.11
		MINIMUM	0.002	0.005	7.66	0.2	0.012	0.73
		STD DEV (GEOM *)			0.19	0.6<A	0.030	0.48
# SAMP IN STATISTICS	2		1	10	9	11	11	9
% SAMP (EXCLUDED)	80		90					10

1983 WATER QUALITY DATA REGION 4

3

B.O.W./ SITE: CONSECON CREEK
 SAMPLE POINT: AT COUNTY ROAD 2 ALLISONVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02HE002

STATION ID: 06-0157-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: CONSECON CREEK

STORET CODE: 02
 004
 2640

LAT: 44 01 39.48 LONG: 077 22 01.59 U T M: 18 0310300.0 4877450.0 4 REGION: 04 DISTANCE: 14.001

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FNFLOW	FMPH
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	FLOW	
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	PH
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	FIELD
830125	0955	17804	0101	258.0	0.001<	488.0	0.031	3.00	0.440	0.545	
830222		17812	0101	202.5		389.0		2.00	0.125	0.900	
830329		17820	0101	168.4	0.001<	348.0	0.006	3.00	0.100	2.700	
830503	1000	17828	0101	172.1	0.001<	331.0	0.002	6.00	0.155	5.010	
830531	1220	17836	0101	187.3	0.001<	348.0	0.003	10.00	0.140	1.400	
830628	0925	17844	0101	232.2	0.001	428.0	0.007	6.00	2.080	0.025	
830726	1000	17852	0101	149.6	0.001	305.0	0.001	14.00	1.175	0.000	
830830	1005	17860	0101	148.5	0.001<	306.0	0.001	9.50	1.220	0.001	
831003	1030	17868	0101	160.5	0.001<	348.0	0.002	9.00	0.460	0.000	
831025	0951	17876	0101	206.4	0.001<	472.0	0.000		0.365	0.023	7.00
831129	1011	17884	0101	138.0	0.001<	379.0	0.002	4.00	0.085	1.490	
MAXIMUM		0.30		258.0	0.001	488.0	0.031	14.00	2.080	5.010	7.00
ARITH MEAN		0.30		184.0	0.001	376.5	0.005	6.65	0.577	1.099	7.00
GEOM MEAN				180.7		372.1		5.61	0.330		
MINIMUM		0.30		138.0	0.001	305.0	0.000	2.00	0.085	0.000	7.00
STD DEV (GEOM *)				37.6		62.4		3.87	0.644		
# SAMP IN STATISTICS		11		11	2	11	10	10	11	11	1
% SAMP (EXCLUDED)					80						
*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT	
SAMPLE		STREAM	WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC	
DATE	HOUR	COND.	TEMP	UNF. TOT.	UNF. TOT.		UNF-REAC	UNF. TOT.	TURB.ITY	UNF. TOT.	
YYMMDD	LMT		DEG.C	MG/L	MG/L	PH	UG/L	MG/L	FTU	MG/L	
				AS NI	AS PB		PHENOL	AS P		AS ZN	
830125	0955	6 8	1.5	0.006	0.003<	7.39	0.2<W	0.100	1.40	0.009	
830222		6 8	0.5			8.16		0.034	0.56		
830329		6 8	1.0	0.002<	0.003	7.94		0.071	0.57	0.003	
830503	1000	8	15.0	0.002<	0.003<	7.91	0.2<W	0.128	1.50	0.003	
830531	1220	6 8	17.5	0.002<	0.003<	7.82	0.2<W	0.165	0.58	0.002	
830628	0925	6 7	20.0	0.002<	0.003<		0.6<T			0.004	
830726	1000	6 7	23.5	0.002	0.003<	7.33	1.0	0.510	5.50	0.002	
830830	1005	6 7	22.0	0.002<	0.003	7.73	0.6<T	0.420	7.80	0.005	
831003	1030	6 7	19.0	0.002<	0.003<	8.11	0.2<W	0.142	3.30	0.003	
831025	0951	8	8.0	0.000	0.000	7.42	-0.4<T	0.290	2.00	0.000	
831129	1011	6 8	3.0	0.002<	0.003<	7.58	0.2<T	0.040	0.59	0.003	

(CONT'D)

1983 WATER QUALITY DATA REGION 4

4

B.O.W./ SITE: CONSECON CREEK
 SAMPLE POINT: AT COUNTY ROAD 2 ALLISONVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02HE002

STATION ID: 06-0157-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: CONSECON CREEK

STORET CODE: 02
 004
 2640

LAT: 44 01 39.48 LONG: 077 22 01.59 U T M: 18 0310300.0 4877450.0 4 REGION: 04 DISTANCE: 14.001

*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC	
SAMPLE DATE	HR	SAMPLE NUMBER	STREAM COND.	WATER TEMP DEG.C	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	TURB'ITY FTU	UNF.TOT. MG/L AS ZN	
MAXIMUM				23.5	0.006	0.003	8.16	1.0	0.510	7.80	0.009
ARITH MEAN				11.9	0.003	0.002	7.74	0.3<A	0.190	2.38	0.003
GEOM MEAN				6.5			7.73		0.134	1.52	
MINIMUM				0.5	0.000	0.000	7.33	-0.4	0.034	0.56	0.000
STD DEV (GEOM *)				9.2			0.30		0.164	2.47	
# SAMP IN STATISTICS				11	3	3	10	9	10	10	10
% SAMP (EXCLUDED)					70	70					

1983 WATER QUALITY DATA REGION 4

5

B.O.W./ SITE: CONSECON CREEK
 SAMPLE POINT: AT HIGHWAY 14
 STATION TYPE: RIVER

STATION ID: 06-0157-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: CONSECON CREEK

STORET CODE: 02
 004
 2640

LAT: 44 01 51.95 LONG: 077 17 07.84 U T M: 18 0316850.0 4877650.0 4 REGION: 04 DISTANCE: 22.852

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HR	DEPTH	SUB-PROJ	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
		M	AS CAC03	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830125	0940	17803	0101	262.0	0.001<	493.0	0.038	1.00	1.725	8 3	1.0
830222		17811	0101	205.7	0.001<	393.0	0.007	0.20	0.305	3 8	1.0
830329	0935	17819	0101	160.8	0.001<	334.0	0.015	5.50	0.070	6 8	1.5
830503	0950	17827	0101	164.9	0.001<	314.0	0.002	3.00	0.230	8	16.0
830531	1235	17835	0101	186.6	0.001	340.0	0.003	3.00	0.510	6 8	17.5
830628	0915	17843	0101	229.5	0.001	416.0	0.007	2.00	4.020	6 7	19.0
830726	0935	17851	0101	253.0	0.001	451.0	0.002	1.00	4.200	6 7	21.0
830830	0940	17859	0101	256.6	0.001	484.0	0.001	1.00	8.125	7 0	21.0
831003	1015	17867	0101	279.8	0.001	516.0	0.002	1.00	7.900	6 7	16.5
831025	0951	17875	0101	260.7	0.001<	530.0	0.000	1.00	1.925	8	7.0
831129	0950	17883	0101	145.8	0.001<	411.0	0.009	8.00	0.260	6 8	3.5
MAXIMUM		0.30		279.8	0.001	530.0	0.038	8.00	8.125		21.0
ARITH MEAN		0.30		218.7	0.001	425.6	0.008	2.43	2.661		11.4
GEOM MEAN				213.6		419.3		1.58	1.080		6.8
MINIMUM		0.30		145.8	0.001	314.0	0.000	0.20	0.070		1.0
STD DEV (GEOM *)				47.8		75.6		2.38	3.025		8.5
# SAMP IN STATISTICS		11		11	5	11	11	11	11		11
% SAMP (EXCLUDED)					54						
*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HR	UNF. TOT.	UNF. TOT.		UNF. REAC	UNF. TOT.		UNF. TOT.			
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	TURB.ITY	MG/L			
		AS NI	AS PB		PHENOL	AS P	FTU	AS ZN			
830125	0940	0.005	0.003<	7.14	0.2<N	0.190	3.10	0.035			
830222		0.002<	0.003<	8.11		0.053	0.81	0.002			
830329	0935	0.002<	0.007	7.47		0.039	0.42	0.007			
830503	0950	0.002<	0.003<	7.82	0.2<T	0.130	1.20	0.004			
830531	1235	0.002<	0.003<	7.44		0.212	0.83	0.003			
830628	0915	0.002<	0.003<		0.2<T	0.825	7.00	0.002			
830726	0935	0.002<	0.003<	7.04	0.8	0.780	12.00	0.005			
830830	0940	0.002<	0.003<	7.22	3.2	1.570	36.00	0.005			
831003	1015	0.002<	0.003<	7.41	0.8	1.370	21.00	0.003			
831025	0951	0.000	0.000	7.72	-0.4<T	0.750	11.70	0.000			
831129	0950	0.002<	0.020	7.36	0.2<T	0.090	0.52	0.033			

(CONTD)

1983 WATER QUALITY DATA REGION 4

6

B.O.W./ SITE: CONSECON CREEK
SAMPLE POINT: AT HIGHWAY 14
STATION TYPE: RIVER

STATION ID: 06-0157-003-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: LAKE ONTARIO
TERM STREAM: CONSECON CREEK

STORET CODE: 02
004
2640

LAT: 44 01 51.95 LONG: 077 17 07.04

U T M: 18 0316850.0 4877650.0 4

REGION: 04

DISTANCE: 22.852

*INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB TURB'ITY	ZNUT ZINC	
SAMPLE DATE	HOUR	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L		UNF.TOT. MG/L	
YYMMDD	LMT	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN	
		MAXIMUM	0.005	0.020	8.11	3.2	1.570	36.00	0.035
		ARITH MEAN	0.002	0.009	7.47	0.6<A	0.546	8.60	0.009
		GEOM MEAN			7.47		0.285	3.23	
		MINIMUM	0.000	0.000	7.04	-0.4	0.039	0.42	0.000
		STD DEV (GEOM *)			0.33		0.550	11.25	
		# SAMP IN STATISTICS	2	3	10	8	11	11	11
		% SAMP (EXCLUDED)	81	72					

1983 WATER QUALITY DATA REGION 4

7

B.O.W./ SITE: BLOOMFIELD CREEK
 SAMPLE POINT: AT CHURCH STREET BLOOMFIELD
 STATION TYPE: RIVER FLOW GAUGE FED 02HE001

STATION ID: 06-0163-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: BLOOMFIELD CREEK

STORET CODE: 02
 004
 2460

LAT: 43 58 25.63 LONG: 077 14 49.76 U T M: 18 0319750.0 4871200.0 4 REGION: 04 DISTANCE: 5.954

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
SAMPLE DATE	TIME	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL	ARSENIC UNF.TOT.	CONDUCT. 25C	COPPER UNF.TOT.	DISOLVED OXYGEN	IRON UNF.TOT.	STREAM FLOW	STREAM COND.
YYMMDD	LMT	NUMBER	CODE	MG/L AS CAC03	MG/L AS AS	UMHO/CM AT 25 C	MG/L AS CU	MG/L AS O	MG/L AS FE	M3 /S	
830125	0925	17802	0101	268.5	0.001<	670.0	0.015	5.00	0.100	0.212	3 8
830222		17810	0101	232.4	0.001<	535.0	0.014	1.00	0.045	0.125	3 8
830329	0917	17818	0101	219.1	0.001<	498.0	0.009	12.00	0.085	0.432	6 8
830503	0940	17826	0101	215.0	0.001<	449.0	0.004	6.00	0.245	0.697	8
830531	1250	17834	0101	237.3	0.001<	469.0	0.003	6.00	0.500	0.204	6 8
830628	0905	17842	0101	180.5	0.001<	331.0	0.007	4.00	0.366	0.044	6 7
830726	0925	17850	0101	283.0	0.001<	678.0	0.002	1.00	2.500	0.012	6 7
830830	0920	17858	0101	313.6	0.001	974.0	0.004	2.00	0.460	0.012	6 7
831003	0945	17866	0101	570.2	0.002	1440.0	0.004	3.00	0.750	0.011	6 8
831025	0932	17874	0101	451.5	0.001	1072.0	0.014	2.00	1.100	0.019	8
831129	0920	17882	0101	217.6	0.001<	625.0	0.003	3.00	0.095	0.341	6 8
MAXIMUM		0.30		570.2	0.002	1440.0	0.015	12.00	2.500	0.697	
ARITH MEAN		0.30		289.9	0.001	703.7	0.007	4.09	0.568	0.192	
GEOM MEAN				272.9		644.2	0.006	3.16	0.296	0.079	
MINIMUM		0.30		180.5	0.001	331.0	0.002	1.00	0.045	0.011	
STD DEV (GEOM *)				118.2		329.9	0.005	3.18	0.718	0.221	
# SAMP IN STATISTICS		11		11	3	11	11	11	11	11	
% SAMP (EXCLUDED)					72						

*=INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	TIME	WATER TEMP	NICKEL UNF.TOT.	LEAD UNF.TOT.	PH	PHENOLS UNF-REAC	PHOSPHOR UNF.TOT.	TURB'ITY	ZINC UNF.TOT.
YYMMDD	LMT	DEG.C	MG/L AS NI	MG/L AS PB		UG/L PHENOL	MG/L AS P	FTU	MG/L AS ZN
830125	0925	17802	0.011	0.003<	7.70	0.2<W	0.185	1.50	0.020
830222		17810	0.008	0.003<	8.27		0.048	0.67	0.017
830329	0917	17818	0.011	0.004	8.08		0.041	1.80	0.012
830503	0940	17826	0.002<	0.003<	7.88	-0.2<T	0.054	1.30	0.009
830531	1250	17834	0.002<	0.003<	7.82			1.97	0.003
830628	0905	17842	0.010	0.003<		1.2	0.052	3.50	0.022
830726	0925	17850	0.002<	0.003<	7.26	0.2<T	1.550		0.012
830830	0920	17858	0.002<	0.003<	7.51	0.4<T	1.400	2.10	0.020
831003	0945	17866	0.002<	0.003<	7.94	-0.4<T	1.280	4.90	0.005
831025	0932	17874	0.003	0.003<	7.62	20.0	1.370		0.006
831129	0920	17882	0.002<	0.003<	7.72	0.2<T	0.145	1.04	0.003

(CONTD)

1983 WATER QUALITY DATA REGION 4

8

B.O.W./ SITE: BLOOMFIELD CREEK
 SAMPLE POINT: AT CHURCH STREET BLOOMFIELD
 STATION TYPE: RIVER FLOW GAUGE FED 02HE001

STATION ID: 06-0163-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: BLOOMFIELD CREEK

STORET CODE: 02
 004
 2460

LAT: 43 58 25.63 LONG: 077 14 49.76 U T M: 18 0319750.0 4871200.0 4 REGION: 04 DISTANCE: 5.954

*=INTERIM TEST-NAME:		FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE		WATER	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
DATE	HR	TEMP	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L
YYMMDD	LMT	DEG.C	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
MAXIMUM		21.0	0.011	0.004	8.27	20.0	1.550	4.90	0.022
ARITH MEAN		11.6	0.009	0.004	7.78	2.7<A	0.612	2.09	0.012
GEOM MEAN		6.7			7.78		0.237	1.77	0.009
MINIMUM		0.5	0.003	0.004	7.26	-0.4	0.041	0.67	0.003
STD DEV (GEOM *)		8.4			0.29		0.682	1.33	0.007
# SAMP IN STATISTICS		11	5	1	10	8	10	9	11
% SAMP (EXCLUDED)			54	90					

III

1983 WATER QUALITY DATA REGION 4

9

B.O.W./ SITE: BLACK RIVER
 SAMPLE POINT: AT COUNTY ROAD 17
 STATION TYPE: RIVER

STATION ID: 06-0172-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: BLACK RIVER

STORET CODE: 02
 004
 2010

LAT: 43 56 04.08 LONG: 077 05 21.56 U T M: 18 0332300.0 4866500.0 4 REGION: 04 DISTANCE: 7.725

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
				ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
SAMPLE DATE	HOUR	SAMPLE NUMBER	DEPTH	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	STREAM	WATER
YYMMDD	LMT		M	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG. C
830125	0850	17801	0.30	248.5	0.001<	479.0	0.150	12.00	0.060	3 8	2.0
830222	0840	17809	0.30	207.2	0.001<	399.0	0.006		0.045	3 8	1.0
830329	0845	17817	0.30	195.0	0.001<	373.0	0.020	8.00	0.040<T	6 8	4.0
830503	0920	17825	0.30	183.5	0.001<	350.0	0.010	8.00	0.340	8	15.0
830531	1320	17833	0.30	206.9	0.001<	375.0	0.003	4.00	0.195	6 8	17.0
830628	0845	17841	0.30	236.2	0.001<	502.0	0.009	7.00	0.371	6 8	23.0
830726	0848	17849	0.30	143.5	0.001	270.0	0.003	9.00	0.140	6 8	26.0
830830	0845	17857	0.30	121.6	0.001<	240.0	0.018	7.00	0.120	6 8	25.0
831003	0920	17865	0.30	122.9	0.001<	235.0	0.008	10.00	0.185	6 8	19.5
831025	0845	17873	0.30	122.9	0.001<	244.0	0.016	7.00	0.560	6 8	11.0
831129	0840	17881	0.30	155.0	0.001<	464.0	0.004	7.00	0.260	6 8	4.0
MAXIMUM			0.30	248.5	0.001	502.0	0.150	12.00	0.560		26.0
ARITH MEAN			0.30	176.7	0.001	357.4	0.022	7.90	0.211<A		13.4
GEOM MEAN				171.1		344.4	0.010	7.62	0.155<A		8.9
MINIMUM			0.30	121.6	0.001	235.0	0.003	4.00	0.040		1.0
STD DEV (GEOM *)				46.2		99.3	0.043	2.13	0.161<A		9.5
# SAMP IN STATISTICS			11	11	1	11	11	10	11		11
% SAMP (EXCLUDED)					90						
*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
SAMPLE DATE	HOUR	UNF. TOT.	UNF. TOT.		UNF-REAC	UNF. TOT.		UNF. TOT.			
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	TURB*ITY	MG/L			
		AS NI	AS PB		PHENOL	AS P	FTU	AS ZN			
830125	0850	0.120	0.010	7.92	0.2<W	0.014	1.43	0.490			
830222	0840	0.015	0.003<	8.41		0.006	0.53	0.019			
830329	0845	0.002	0.003<	8.52		0.016	0.79	0.004			
830503	0920	0.010	0.003<	8.35	-0.2<T	0.029	4.80	0.034			
830531	1320	0.002<	0.003<	8.17		0.040	1.70	0.002			
830628	0845	0.003	0.003<		2.6		1.20	0.003			
830726	0848	0.003	0.003	7.95	0.2<W	0.028	1.50	0.014			
830830	0845	0.002<	0.004	8.15	0.2<T	0.027	1.55	0.034			
831003	0920	0.002	0.003<	8.05	0.2<W	0.047	2.60	0.027			
831025	0845	0.004	0.003<	7.89	0.2<W	0.068	5.60	0.023			
831129	0840	0.002<	0.003<	8.02	0.2<T	0.033	2.40	0.005			

(CONT'D)

1983 WATER QUALITY DATA REGION 4

10

B.O.W./ SITE: BLACK RIVER
 SAMPLE POINT: AT COUNTY ROAD 17
 STATION TYPE: RIVER

STATION ID: 06-0172-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: BLACK RIVER

STORET CODE: 02
 004
 2010

LAT: 43 56 04.08 LONG: 077 05 21.56

U T M: 18 0332300.0 4866500.0 4

REGION: 04

DISTANCE: 7.725

*=INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE		UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
DATE	HOUR	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L
YYMMDD	LMT	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
MAXIMUM		0.120	0.010	8.52	2.6	0.068	5.60	0.490
ARITH MEAN		0.020	0.006	8.14	0.4<A	0.031	2.19	0.060
GEOM MEAN				8.14		0.026	1.75	0.015
MINIMUM		0.002	0.003	7.89	-0.2	0.006	0.53	0.002
STD DEV (GEOM *)				0.22		0.018	1.61	0.143
# SAMP IN STATISTICS		8	3	10	8	10	11	11
% SAMP (EXCLUDED)		27	72					

III

1983 WATER QUALITY DATA REGION 4

11

B.O.W./ SITE: MILLHAVEN CREEK
 SAMPLE POINT: FIRST CONCESSION ROAD SOUTH OF ODESSA
 STATION TYPE: RIVER

STATION ID: 06-0180-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MILLHAVEN CREEK

STORET CODE: 02
 004
 0080

LAT: 44 15 42.14 LONG: 076 43 38.77 U T M: 18 0362110.0 4902175.0 4 REGION: 04 DISTANCE: 6.437

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FWSTRC	FNTEMP	
					BOD 5 DAY	CHLORIDE	CONDUCT. 25C	COPPER	DISOLVED			
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	TOT.DEM. MG/L AS O	UNF.REAC MG/L AS CL-	UMHO/CM AT 25 C	UNF.TOT. MG/L AS CU	OXYGEN MG/L AS O	STREAM COND.	WATER TEMP DEG.C
830103	0940	18610	0.30	0101	154.5	0.63	9.90	340.0	0.002	7.00	8	
830207	0900	18502	0.30	0101	102.0	1.04	9.10	242.0		7.00	8	
830308	0910	18511	0.30	0101	136.4	1.11	11.10	308.0	0.011	5.00	8	3.0
830411	0900	18520	0.30	0101	148.9	0.75	13.20	330.0	0.030	5.00	8	5.0
830503		18529	0.30	0101	141.3	2.43	11.20	312.0	0.012	5.00	8	13.0
830607	0905	18538	0.30	0101	142.8	1.39	10.53	310.0	0.013	4.00	8	13.0
830705	0900	18547	0.30	0101	120.7	0.96	14.30	286.0	0.009	4.00	8	23.0
830802	0900	18556	0.30	0101	126.5	0.98	15.40	312.0	0.011		8	21.0
830913	0855	18565	0.30	0101	118.3	0.92	15.60	306.0	0.007		8	17.0
831004	0925	18574	0.30	0101	130.8	1.14	17.76	338.0	0.003		8	18.0
831115	0910	18583	0.30	0101	150.5	1.25	14.88	359.0	0.001		8	2.0
831205	0930	18592	0.30	0101	160.7	0.68	12.86	397.0	0.018	13.20	8	1.0
		MAXIMUM	0.30		160.7	2.43	17.76	397.0	0.030	13.20		23.0
		ARITH MEAN	0.30		136.1	1.11	12.99	320.0	0.011	6.27		11.6
		GEOM MEAN			135.1	1.04	12.73	317.9	0.007	5.81		7.7
		MINIMUM	0.30		102.0	0.63	9.10	242.0	0.001	4.00		1.0
		STD DEV (GEOM *)			17.1	0.47	2.67	38.2	0.008	3.03		8.3
		# SAMP IN STATISTICS	12		12	12	12	12	11	8		10
		% SAMP (EXCLUDED)										

*INTERIM TEST-NAME:		NNHTFR NH3-N TOTAL	PBUT	PH	PPUT	TURB	ZNUT
		FIL.REAC	LEAD		PHOSPHOR		ZINC
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	MG/L AS N	MG/L AS PB	MG/L AS P	TURB'ITY FTU	MG/L AS ZN
830103	0940	18610	0.004<T	0.003<	8.37	0.017	0.006
830207	0900	18502	0.004<T		7.80	0.026	
830308	0910	18511	0.004<T	0.003<	8.01	0.036	0.005
830411	0900	18520	0.006	0.003<	8.39	0.024	0.011
830503		18529	0.004<T	0.003<	7.92	0.035	0.008
830607	0905	18538	0.008	0.008	7.91	0.047	0.006
830705	0900	18547	0.054	0.003<	8.20	0.094	0.004
830802	0900	18556	0.014	0.003<	7.86	0.122	0.006
830913	0855	18565	0.026	0.003<	8.01	0.082	0.005
831004	0925	18574	0.058	0.003<	8.08	0.120	0.007
831115	0910	18583	0.070	0.003	8.06	0.046	0.004
831205	0930	18592	0.124	0.008	8.00	0.023	0.029

(CONT'D)

11

1983 WATER QUALITY DATA REGION 4

12

B.O.W./ SITE: MILLHAVEN CREEK
 SAMPLE POINT: FIRST CONCESSION ROAD SOUTH OF ODESSA
 STATION TYPE: RIVER

STATION ID: 06-0180-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MILLHAVEN CREEK

STORET CODE: 02
 004
 0080

LAT: 44 15 42.14 LONG: 076 43 38.77 U T M: 18 0362110.0 4902175.0 4 REGION: 04 DISTANCE: 6.437

*INTERIM TEST-NAME:		NNHTFR	PBUT	PH	PPUT	TURB	ZNUT
		NH3-N	LEAD		PHOSPHOR		ZINC
		TOTAL	UNF.TOT.		UNF.TOT.		UNF.TOT.
SAMPLE		FIL.REAC	MG/L		MG/L	TURB'ITY	MG/L
DATE	HR	MG/L	AS N	AS PB	PH	AS P	AS ZN
YYMMDD	LMT	NUMBER				FTU	
MAXIMUM		0.124	0.008	8.39	0.122	6.50	0.029
ARITH MEAN		0.031<A	0.006	8.05	0.056	2.34	0.008
GEOM MEAN		0.015<A		8.05	0.045	1.93	0.007
MINIMUM		0.004	0.003	7.80	0.017	0.90	0.004
STD DEV (GEOM *)		0.038<A		0.19	0.038	1.66	0.007
# SAMP IN STATISTICS		12	3	12	12	12	11
% SAMP (EXCLUDED)			72				

1983 WATER QUALITY DATA REGION 4

13

B.O.W./ SITE: MILLHAVEN CREEK
 SAMPLE POINT: AT COUNTY ROAD 6
 STATION TYPE: RIVER

STATION ID: 06-0180-005-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MILLHAVEN CREEK

STORET CODE: 02
 004
 0080

LAT: 44 17 07.80 LONG: 076 43 00.22 U T M: 18 0363020.0 4904800.0 4 REGION: 04 DISTANCE: 10.782

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD
LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH
M	M	M	M	M	M	M	M	M	M	M	M
CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE
AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
CAC03	CAC03	CAC03	CAC03	CAC03	CAC03	CAC03	CAC03	CAC03	CAC03	CAC03	CAC03
830103	1010	18611	0.30	0101	153.6	0.001<	338.0	0.002	7.00	0.050	8
830207	0920	18503	0.30	0101	97.2	0.001<	231.0	0.001	6.00	0.280	8
830308	0930	18512	0.30	0101	94.6	0.001<	297.0	0.037	3.00	0.055	3.0
830411	0930	18521	0.30	0101	146.4	0.001<	312.0	0.001	6.00	0.050	5.0
830503	18530	18530	0.30	0101	134.2	0.001<	291.0	0.005	7.00	0.090	14.0
830607	0935	18539	0.30	0101	141.5	0.001<	301.0	0.011	2.00	0.030	13.0
830705	0930	18548	0.30	0101	100.2	0.001<	227.0	0.002	4.00	0.040<T	26.0
830802	0930	18557	0.30	0101	116.8	0.001<	264.0	0.310	5.00	0.040<T	24.0
830913	0920	18566	0.30	0101	109.4	0.001<	257.0	0.021	4.00	0.050	19.0
831004	1000	18575	0.30	0101	116.4	0.001<	276.0	0.003	4.00	0.055	18.0
831115	0940	18584	0.30	0101	148.0	0.001<	339.0	0.003	0.030<T	8	1.0
831205	1005	18593	0.30	0101	159.5	0.001<	390.0	0.008	12.40	0.040<T	8
		MAXIMUM	0.30		159.5		390.0	0.310	12.40	0.280	26.0
		ARITH MEAN	0.30		126.5		293.6	0.037	5.49	0.067<A	12.4
		GEOM MEAN			124.5		290.2	0.007	4.93	0.053<A	7.5
		MINIMUM	0.30		94.6		227.0	0.001	2.00	0.030	1.0
		STD DEV (GEOM *)			23.4		47.3	0.091	2.79	0.069<A	9.4
		# SAMP IN STATISTICS	12		12		12	11	11	12	10
		% SAMP (EXCLUDED)									

*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD	YMMDD
LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
AS NI	AS PB	AS NI	AS PB	AS NI	AS PB	AS NI	AS PB	AS NI
AS NI	AS PB	AS NI	AS PB	AS NI	AS PB	AS NI	AS PB	AS NI
830103	1010	18611	0.002<	0.003<	8.23	0.2<M	0.017	0.79
830207	0920	18503	0.002<	0.003<	7.59	0.2<T	0.025	7.20
830308	0930	18512	0.002<	0.003<	7.85	0.2<T	0.036	1.20
830411	0930	18521	0.002<	0.003<	8.44	0.2<T	0.017	1.20
830503	18530	18530	0.002<	0.003<	8.13	0.2<M	0.032	1.60
830607	0935	18539	0.002<	0.003<	7.77	0.2<M	0.019	1.21
830705	0930	18548	0.002<	0.003<	8.45	1.2	0.027	1.00
830802	0930	18557	0.002<	0.003<	7.98		0.021	0.95
830913	0920	18566	0.002<	0.003<	8.04	0.2<M	0.021	1.40
831004	1000	18575	0.002<	0.003<	8.00	0.2<T	0.057	2.40
831115	0940	18584	0.002	0.003<	8.34	-0.2<T	0.029	2.00
831205	1005	18593	0.002	0.003<	8.01	-0.2<T	0.016	1.33

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

14

B.O.W./ SITE: MILLHAVEN CREEK
SAMPLE POINT: AT COUNTY ROAD 6
STATION TYPE: RIVER

STATION ID: 06-0180-005-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: LAKE ONTARIO
TERN STREAM: MILLHAVEN CREEK

STORET CODE: 02
004
0080

LAT: 44 17 07.80 LONG: 076 43 00.22 U T M: 18 0363020.0 4904800.0 4 REGION: 04 DISTANCE: 10.782

*=INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HOURL LMT	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L
YYMMDD	NUMBER	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
		MAXIMUM 0.002		8.45	1.2	0.057	7.20	0.040
		ARITH MEAN 0.002		8.07	0.2<A	0.026	1.86	0.013
		GEOM MEAN		8.07		0.025	1.50	0.010
		MINIMUM 0.002		7.59	-0.2	0.016	0.79	0.003
		STD DEV (GEOM *)		0.26		0.012	1.74	0.012
		# SAMP IN STATISTICS 2		12	11	12	12	11
		% SAMP (EXCLUDED) 81						

1983 WATER QUALITY DATA REGION 4

15

B.O.W./ SITE: LITTLE CATARAQUI CREEK
 SAMPLE POINT: HIGHWAY 2, 1 MILE SOUTHEAST OF CATARAQUI
 STATION TYPE: RIVER

STATION ID: 12-0002-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: LITTLE CATARAQUI CREEK

STORET CODE: 02
 004
 0010

LAT: 44 15 07.44 LONG: 076 32 08.30 U T M: 18 0377400.0 4900800.0 4 REGION: 04 DISTANCE: 4.345

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALK	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE DATE	HR	SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
YYMMDD	LMT	NUMBER	SUB-PROJ CODE	TOTAL MG/L AS CAC03	UNF.TOT. MG/L AS AS	25C UMHO/CM AT 25 C	UNF.TOT. MG/L AS CU	OXYGEN MG/L AS O	UNF.TOT. MG/L AS FE	STREAM COND.	WATER TEMP DEG.C
830103	0920	18609	0101	200.1	0.001<	501.0	0.005	7.00	0.610	8	
830207	0840	18501	0101	153.4	0.001<	438.0		9.00	0.945	8	
830308	0835	18510	0101	168.3	0.001<	439.0	0.040	10.00	0.575	8	3.0
830411	0830	18519	0101	162.4	0.001<	394.0	0.018	5.00	0.615	8	5.0
830503		18528	0101	164.3	0.001<	394.0	0.012	5.00	0.560	8	12.0
830607	0845	18337	0101	155.3	0.001<	395.0	0.023	4.00	0.850	8	13.0
830705	0835	18546	0101	179.3	0.001<	458.0	0.010		0.510	8	25.0
830802	0840	18555	0101	155.0	0.001<	541.0	0.013		0.605	8	20.0
830913	0830	18564	0101	183.5	0.001<	544.0	0.010		0.860	8	18.0
831004	0905	18573	0101	215.8	0.001<	587.0	0.004		1.800	8	18.0
831115	0845	18582	0101	204.4	0.001<	575.0	0.008		0.385	8	2.0
831205	0855	18590	0101	196.1	0.001<	537.0	0.011	11.10	0.480	8	1.0
		MAXIMUM	0.30	215.8		587.0	0.040	11.10	1.800		25.0
		ARITH MEAN	0.30	178.2		483.6	0.014	7.30	0.733		11.7
		GEOM MEAN		177.0		478.6	0.011	6.84	0.673		7.7
		MINIMUM	0.30	153.4		394.0	0.004	4.00	0.385		1.0
		STD DEV (GEOM *)		21.6		72.5	0.010	2.77	0.375		8.5
		* SAMP IN STATISTICS	12	12		12	11	7	12		10
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	HR	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
YYMMDD	LMT	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF.TOT. UG/L PHENOL	UNF.TOT. MG/L AS P	TURB'ITY FTU	UNF.TOT. MG/L AS ZN
830103	0920	0.002<	0.003<	8.43	0.2<W	0.032	7.70	0.012
830207	0840	0.002<	0.003<	8.06	0.2<W	0.052	15.00	
830308	0835	0.002<	0.003<	7.78	0.2<W	0.044	9.20	0.018
830411	0830	0.002<	0.003<	8.47	0.2<T	0.049	10.10	0.015
830503		0.002<	0.003<	8.21	0.2<T	0.072	3.20	0.017
830607	0845	0.002<	0.003<	7.62	0.4<T	0.080	15.30	0.010
830705	0835	0.002	0.003<	7.56	1.0	0.116	5.00	0.025
830802	0840	0.002<	0.003<	7.45	0.2<W	0.093	8.20	0.012
830913	0830	0.002	0.003<	7.72	1.2	0.129	10.20	0.020
831004	0905	0.002	0.003	7.85	0.2<W	0.137	26.00	0.017
831115	0845	0.002<	0.003<	8.01	0.2<W	0.038	6.90	0.013
831205	0855	0.003	0.003<	7.85	0.2<T	0.033	7.20	0.019

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

16

B.O.W./ SITE: LITTLE CATARAQUI CREEK
 SAMPLE POINT: HIGHWAY 2, 1 MILE SOUTHEAST OF CATARAQUI
 STATION TYPE: RIVER

STATION ID: 12-0002-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: LITTLE CATARAQUI CREEK

STORET CODE: 02
 004
 0010

LAT: 44 15 07.44 LONG: 076 32 08.30 U T M: 18 0377400.0 4900800.0 4 REGION: 04 DISTANCE: 4.345

*INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB TURB'ITY	ZNUT ZINC	
SAMPLE DATE	HOUR YYMMDD LMT	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	FTU	UNF.TOT. MG/L AS ZN	
		MAXIMUM	0.003	0.003	8.47	1.2	0.137	26.00	0.025
		ARITH MEAN	0.002	0.003	7.92	0.4<A	0.073	10.33	0.016
		GEOM MEAN			7.91	0.3<A	0.064	9.00	0.016
		MINIMUM	0.002	0.003	7.45	0.2	0.032	3.20	0.010
		STD DEV (GEOM #)			0.33	0.3<A	0.038	6.07	0.004
		# SAMP IN STATISTICS	4	2	12	12	12	12	11
		% SAMP (EXCLUDED)	63	81					

1983 WATER QUALITY DATA REGION 4

17

B.O.W./ SITE: LITTLE CATARAQUI CREEK
 SAMPLE POINT: AT RESERVOIR OUTLET DAM
 STATION TYPE: RIVER

STATION ID: 12-0002-008-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: LITTLE CATARAQUI CREEK

STORET CODE: 02
 004
 0010

LAT: 44 16 38.70 LONG: 076 31 30.08

U T M: 18 0378300.0 4903600.0 4

REGION: 04

DISTANCE: 8.207

*=INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
		M	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE			DEG.C
830103	0845	18608	0101	172.8	0.001<	398.0	0.001	11.00	0.405	4 8	
830207	0810	18500	0101	89.8	0.001<	226.0		10.00	1.300	4 8	
830308	0805	18509	0101	158.3	0.001<	367.0	0.011	7.00	0.260	4 8	4.0
830411	0800	18518	0101	166.0	0.001<	356.0	0.031	7.00	0.275	8	6.0
830503		18527	0101	165.5	0.001<	360.0	0.006	8.00	0.320	8	13.0
830607	0810	18536	0101	103.2	0.001<	253.0	0.025	4.00	0.210	8	15.0
830705	0805	18545	0101	127.8	0.001<	303.0	0.006	5.00	0.170	8	24.0
830802	0810	18554	0101	147.9	0.001<	333.0	0.003		0.190	8	22.0
830913	0755	18563	0101	163.0	0.001<	406.0	0.012		0.395	8	18.0
831004	0825	18572	0101	173.4	0.001	425.0	0.002		0.590	8	18.0
831115	0810	18581	0101	189.0	0.001<	486.0	0.008		0.750	8	4.0
MAXIMUM		0.30		189.0	0.001	486.0	0.031	11.00	1.300		24.0
ARITH MEAN		0.30		150.6	0.001	355.7	0.010	7.43	0.442		13.8
GEOM MEAN				147.2		348.0	0.007	7.05	0.363		11.4
MINIMUM		0.30		89.8	0.001	226.0	0.001	4.00	0.170		4.0
STD DEV (GEOM #)				31.0		75.4	0.010	2.51	0.335		7.6
# SAMP IN STATISTICS		11		11	1	11	10	7	11		9
% SAMP (EXCLUDED)					90						
*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HOUR	UNF. TOT.	UNF. TOT.		UNF-REAC	UNF. TOT.		UNF. TOT.			
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	'MG/L	TURB'ITY	MG/L			
		AS NI	AS PB		PHENOL	AS P	FTU	AS ZN			
830103	0845	18608	0.002<	8.32	0.2<T	0.032	4.20	0.004			
830207	0810	18500		7.82	0.4<T	0.076	20.00				
830308	0805	18509	0.002<	7.85	0.2<W	0.031	3.20	0.005			
830411	0800	18518	0.002<	8.40	0.2<T	0.027	3.00	0.008			
830503		18527	0.002<	8.18	0.2<T	0.031	4.50	0.001			
830607	0810	18536	0.002<	7.96	0.4<T	0.047	5.00	0.002			
830705	0805	18545	0.003	7.97	1.0	0.043	2.00	0.004			
830802	0810	18554	0.002<	7.62	0.2<W	0.051	1.80	0.001<			
830913	0755	18563	0.002<	7.95	-0.4<T	0.086	7.90	0.003			
831004	0825	18572	0.002<	8.05	0.2<W	0.087	8.50	0.004			
831115	0810	18581	0.002<	8.10	0.2<T	0.095	10.40	0.010			

(CONTD)

1983 WATER QUALITY DATA REGION 4

18

B.O.W./ SITE: LITTLE CATARAQUI CREEK
 SAMPLE POINT: AT RESERVOIR OUTLET DAM
 STATION TYPE: RIVER

STATION ID: 12-0002-008-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: LITTLE CATARAQUI CREEK

STORET CODE: 02
 004
 0010

LAT: 44 16 38.70 LONG: 076 31 30.08

U T M: 18 0378300.0 4903600.0 4

REGION: 04

DISTANCE: 8.207

*=INTERIM	TEST-NAME:	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE	DATE HOUR	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L
YYMMDD LMT	SAMPLE NUMBER	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
	MAXIMUM	0.003		8.40	1.0	0.095	20.00	0.010
	ARITH MEAN	0.003		8.02	0.3<A	0.055	6.41	0.005
	GEOM MEAN			8.02		0.050	4.97	
	MINIMUM	0.003		7.62	-0.4	0.027	1.60	0.001
	STD DEV (GEOM %)			0.23		0.026	5.29	
	# SAMP IN STATISTICS	1		11	11	11	11	9
	% SAMP (EXCLUDED)	90						10

1983 WATER QUALITY DATA REGION 4

19

B.O.M./ SITE: CATARAQUI RIVER
 SAMPLE POINT: HIGHWAY 2, KINGSTON (CENTRE)
 STATION TYPE: RIVER

STATION ID: 12-0004-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: CATARAQUI RIVER

STORET CODE: 02
 005
 1770

LAT: 44 09 44.66 LONG: 076 28 23.81 U T M: 18 0382200.0 4890750.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP	NNHTFR NH3-N TOTAL	
SAMPLE DATE	HOUR	SAMPLE NUMBER	DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF.TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	IRON UNF.TOT. MG/L AS FE	STREAM COND.	WATER TEMP DEG.C	FIL.REAC MG/L AS N
830103	0945	18612	0.30	0101	102.2	269.0	0.004		0.495	8		0.004<T
830207	1000	18504	0.30	0101	95.1	230.0		10.00	0.135	8		0.064
830308	1005	18513	0.30	0101	92.7	273.0	0.010	10.00	0.070	8	3.0	0.004<T
830411	1005	18522	0.30	0101	95.3	246.0	0.072	4.00	0.155	8	6.0	0.008
830503		18531	0.30	0101	92.7	229.0	0.008	3.00	0.280	8	12.0	0.004<T
830607	1020	18540	0.30	0101	91.1	251.0	0.011	6.00	0.170	8	14.0	0.006
830705	1010	18549	0.30	0101	93.9	266.0	0.002	7.00	0.115	8	22.0	0.082
830802	1010	18558	0.30	0101	88.6	267.0	0.003		0.185	8	23.0	0.148
830913	1000	18567	0.30	0101	86.3	270.0	0.026		0.145	8	20.0	0.052
831004	1035	18576	0.30	0101	87.4	273.0	0.005		1.150	8	18.0	0.064
831115	1030	18585	0.30	0101	96.7	258.0	0.002	6.00	0.160	8	3.0	0.084
831205	1045	18594	0.30	0101	99.1	269.0	0.006	13.20	0.240	8	4.0	0.110
		MAXIMUM	0.30		102.2	273.0	0.072	13.20	1.150		23.0	0.148
		ARITH MEAN	0.30		93.4	258.4	0.014	7.40	0.275		12.5	0.052<A
		GEOM MEAN			93.3	257.9	0.007	6.69	0.202		9.6	0.025<A
		MINIMUM	0.30		86.3	229.0	0.002	3.00	0.070		3.0	0.004
		STD DEV (GEOM *)			4.7	15.9	0.021	3.43	0.296		8.1	0.048<A
		# SAMP IN STATISTICS	12		12	12	11	8	12		10	12
		% SAMP (EXCLUDED)										

*INTERIM TEST-NAME:		PBUT LEAD UNF.TOT. MG/L AS PB	PH	PHNOL PHENOLS UNF-REAC UG/L PHENOL	PPUT PHOSPHOR UNF.TOT. MG/L AS P	RSP RESIDUE PARTIC. MG/L	TURB TURB'ITY FTU	ZNUT ZINC UNF.TOT. MG/L AS ZN	
830103	0945	18612	0.003<	8.07	0.2<W	0.042	10.200	6.70	0.008
830207	1000	18504		8.02	0.2<W	0.023	3.270	2.90	
830308	1005	18513	0.003<	8.02		0.021	1.610	1.02	0.007
830411	1005	18522	0.003<	8.18	0.4<T	0.033	7.140	3.70	0.007
830503		18531	0.003<	8.03	0.2<W	0.041	9.360	6.20	0.007
830607	1020	18540	0.003<	8.20	0.2<T	0.027	4.420	2.50	0.005
830705	1010	18549	0.003<	8.34	0.8	0.034	3.500	2.10	0.003
830802	1010	18558	0.005	8.07	0.2<W	0.041	5.920	4.20	0.005
830913	1000	18567	0.011	8.34	0.2<W	0.039	5.900	4.40	0.008
831004	1035	18576	0.003<	8.33	-0.2<T	0.031	4.560	3.10	0.006
831115	1030	18585	0.003<	8.02	-0.2<T	0.035	4.480	2.80	0.003
831205	1045	18594	0.003<	8.15	0.2<T	0.027	0.810<T	2.60	0.016

(CONTD)

1983 WATER QUALITY DATA REGION 4

20

B.O.W./ SITE: CATARAQUI RIVER
 SAMPLE POINT: HIGHWAY 2, KINGSTON (CENTRE)
 STATION TYPE: RIVER

STATION ID: 12-0004-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: CATARAQUI RIVER

STORET CODE: 02
 005
 1770

LAT: 44 09 44.66 LONG: 076 28 23.81

U T M: 18 0382200.0 4890750.0 4

REGION: 04

DISTANCE: 0.805

*=INTERIM	TEST-NAME:	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
		LEAD		PHENOLS	PHOSPHOR			ZINC
SAMPLE		UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE		UNF.TOT.
DATE	HOUR	MG/L		UG/L	MG/L	PARTIC.	TURB'ITY	MG/L
YYMMDD	LMT	AS PB	PH	PHENOL	AS P	MG/L	FTU	AS ZN
	MAXIMUM	0.011	8.34	0.8	0.042	10.200	6.70	0.016
	ARITH MEAN	0.008	8.15	0.2<A	0.033	5.097<A	3.52	0.007
	GEOM MEAN		8.15		0.032	4.222<A	3.16	0.006
	MINIMUM	0.005	8.02	-0.2	0.021	0.810	1.02	0.003
	STD DEV (GEOM *)		0.13		0.007	2.817<A	1.65	0.004
#	SAMP IN STATISTICS	2	12	11	12	12	12	11
%	SAMP (EXCLUDED)	81						

1983 WATER QUALITY DATA REGION 4

21

B.O.W./ SITE: CATARAQUI RIVER
 SAMPLE POINT: AT DAM, KINGSTON MILLS
 STATION TYPE: RIVER

STATION ID: 12-0004-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: CATARAQUI RIVER

STORET CODE: 02
 005
 1770

LAT: 44 17 37.72 LONG: 076 26 28.15

U T M: 18 0385025.0 4905300.0 4

REGION: 04

DISTANCE: 8.207

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FWSTRC	FWTEMP
					BOD 5 DAY	CHLORIDE UNF. REAC	CONDUCT. 25C	COPPER UNF. TOT.	DISOLVED OXYGEN		
SAMPLE DATE	HOUR	SAMPLE NUMBER	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL MG/L	TOT. DEM. MG/L	UMHO/CM AT 25 C	MG/L AS CU	MG/L AS O	STREAM COND.	WATER TEMP DEG. C
YYMMDD	LMT		M	CODE	AS CAC03	AS O	AS CL-				
830103	1400	18616	0.30	0101	95.6	0.72	5.94	227.0	0.001	6.00	8
830207	1310	18508	0.30	0101	88.4	0.91	6.17	212.0		11.00	
830308	1325	18517	0.30	0101	87.0	1.18	5.80	211.0	0.009	8.00	4.0
830411	1305	18526	0.30	0101	91.1	0.92	6.76	216.0	0.004		6.0
830503		18535	0.30	0101	89.3	2.45	5.71	211.0	0.002	7.00	11.0
830607	1410	18544	0.30	0101	86.9	1.18	4.89	202.0	0.006	4.00	17.0
830705	1320	18553	0.30	0101	82.1	1.06	4.86	191.0	0.001	7.00	25.0
830802	1340	18562	0.30	0101	77.7	4.90	4.91	181.0	0.001	5.00	24.0
830913	1345	18571	0.30	0101	79.7	5.24	5.52	179.0	0.013		21.0
831004	1345	18580	0.30	0101	84.3	2.25	5.30	192.0	0.002		17.0
831115	1405	18589	0.30	0101	86.9	1.36	6.20	210.0	0.002	6.00	4.0
831205	1430	18598	0.30	0101	92.8	0.74	7.12	235.0	0.010	13.20	3.0
		MAXIMUM	0.30		95.6	5.24	7.12	235.0	0.013	13.20	25.0
		ARITH MEAN	0.30		86.8	1.91	5.76	205.6	0.005	7.47	13.2
		GEOM MEAN			86.7	1.50	5.72	204.9	0.003	7.01	10.1
		MINIMUM	0.30		77.7	0.72	4.86	179.0	0.001	4.00	3.0
		STD DEV (GEOM *)			5.2	1.58	0.73	17.2	0.004	2.93	8.7
		# SAMP IN STATISTICS	12		12	12	12	12	11	9	10
		% SAMP (EXCLUDED)									

*=INTERIM TEST-NAME:		NNHTFR NH3-N TOTAL	PBUT	PH	PPUT	TURB	ZNUT
		FIL. REAC	LEAD		PHOSPHOR		ZINC
SAMPLE DATE	HOUR	MG/L	UNF. TOT.		UNF. TOT.		UNF. TOT.
YYMMDD	LMT	AS N	MG/L AS PB	PH	MG/L AS P	TURB*ITY FTU	MG/L AS ZN
830103	1400	0.004<7	0.003<	8.31	0.029	4.50	0.001<
830207	1310	0.056		7.98	0.031	6.70	
830308	1325	0.064	0.008	7.95	0.015	1.50	0.002
830411	1305	18526	0.004<T	8.30	0.024	3.40	0.002
830503		18535	0.006	6.97	0.034	4.20	0.002
830607	1410	18544	0.006	8.27	0.034	6.60	0.005
830705	1320	18553	0.046	8.70	0.026	3.50	0.001
830802	1340	18562	0.250	8.64	0.060	5.20	0.002
830913	1345	18571	0.196	8.24	0.079	10.40	0.003
831004	1345	18580	0.162	8.11	0.033	11.90	0.006
831115	1405	18589	0.078	7.96	0.036	4.50	0.006
831205	1430	18598	0.064	8.13	0.027	3.10	0.019

(CONTD)

1983 WATER QUALITY DATA REGION 4

22

B.O.W./ SITE: CATARAQUI RIVER
 SAMPLE POINT: AT DAM, KINGSTON HILLS
 STATION TYPE: RIVER

STATION ID: 12-0004-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: CATARAQUI RIVER

STORET CODE: 02
 005
 1770

LAT: 44 17 37.72 LONG: 076 26 28.15 U T M: 18 0385025.0 4905300.0 4 REGION: 04 DISTANCE: 8.207

*INTERIM TEST-NAME:		NNHTFR NH3-N TOTAL FIL.REAC	PBUT LEAD UNF.TOT.	PH	PPUT PHOSPHOR UNF.TOT.	TURB TURB'ITY FTU	ZNUT ZINC UNF.TOT.
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER MG/L AS N	MG/L AS PB		MG/L AS P		MG/L AS ZN
		MAXIMUM	0.250	0.008	8.70	0.079	11.90
		ARITH MEAN	0.078<A	0.008	8.13	0.036	5.46
		GEOM MEAN	0.035<A		8.12	0.033	4.76
		MINIMUM	0.004	0.008	6.97	0.015	1.50
		STD DEV (GEOM *)	0.082<A		0.44	0.017	3.04
		# SAMP IN STATISTICS	12	1	12	12	10
		% SAMP (EXCLUDED)		90			9

1983 WATER QUALITY DATA REGION 4

23

B.O.W./ SITE: GANANOQUE RIVER
 SAMPLE POINT: AT RR TRESTLE CANADIAN STEEL GANANOQUE
 STATION TYPE: RIVER

STATION ID: 12-0017-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: GANANOQUE RIVER

STORET CODE: 02
 005
 1280

LAT: 44 19 44.00 LONG: 076 10 05.82 U T M: 18 0406850.0 4908850.0 4 REGION: 04 DISTANCE: 0.966

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FWSTRC	FWTEMP
					BOD 5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED		
SAMPLE DATE	HOUR	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL	TOT.DEM.	UNF.REAC	25C	UNF.TOT.	OXYGEN	STEAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	COND.	TEMP
		M	AS CACO3	AS O	AS CL-	AT 25 C	AS CU	AS O			DEG.C
830103	1115	18613	0.30	0101	107.0	1.09	6.20	248.0	0.001	4.00	8
830207	1030	18505	0.30	0101	94.2	0.77	5.12	216.0		7.00	8
830308	1040	18514	0.30	0101	105.9	1.16	6.00	240.0	0.006	10.00	8
830411	1035	18523	0.30	0101	113.4	1.05	7.06	252.0	0.008	7.00	8
830503		18532	0.30	0101		1.34	5.72	233.0	0.001	7.00	8
830607	1055	18541	0.30	0101	117.5	1.07	6.44	255.0	0.007	3.00	8
830705	1040	18550	0.30	0101	119.2	1.06	6.06	250.0	0.002	5.00	8
830802	1055	18559	0.30	0101	112.5	2.68	8.30	243.0	0.002		8
830913	1040	18568	0.30	0101	122.0	2.01	13.20	270.0	0.011		8
831004	1105	18577	0.30	0101	123.0	1.52	7.65	262.0	0.002		8
831115	1055	18586	0.30	0101	110.2	1.07	10.50	294.0	0.001	8.00	8
831205	1130	18595	0.30	0101	112.5	0.80	7.36	273.0	0.009	12.60	8
		MAXIMUM	0.30		123.0	2.68	13.20	294.0	0.011	12.60	25.0
		ARITH MEAN	0.30		112.5	1.30	7.47	253.0	0.005	7.07	13.1
		GEOM MEAN			112.2	1.22	7.20	252.3	0.003	6.50	9.6
		MINIMUM	0.30		94.2	0.77	5.12	216.0	0.001	3.00	2.0
		STD DEV (GEOM %)			8.3	0.55	2.30	20.3	0.004	2.96	8.9
		% SAMP IN STATISTICS	12		11	12	12	12	11	9	10
		% SAMP (EXCLUDED)									

*=INTERIM TEST-NAME:		NNHTFR	PBUT	PH	PPUT	TURB	ZNUT
		NH3-N	LEAD		PHOSPHOR		ZINC
SAMPLE DATE	HOUR	FIL.REAC	UNF.TOT.		UNF.TOT.	TURB'ITY	UNF.TOT.
YYMMDD	LMT	MG/L	MG/L	PH	MG/L	FTU	MG/L
		AS N	AS PB		AS P		AS ZN
830103	1115	18613	0.004<T	0.003<	8.36	0.047	10.30
830207	1030	18505	0.026		7.46	0.054	12.00
830308	1040	18514	0.002<T	0.003<	7.77	0.035	2.40
830411	1035	18523	0.010	0.003<	8.34	0.052	12.00
830503		18532	0.004<T	0.003<	7.92	0.058	10.00
830607	1055	18541	0.006	0.003<	7.97	0.049	2.00
830705	1040	18550	0.072	0.003<	8.14	0.064	1.20
830802	1055	18559	0.314	0.003<	8.05	0.108	4.30
830913	1040	18568	0.092	0.003	8.04	0.106	3.60
831004	1105	18577	0.122	0.003<	7.95	0.118	2.90
831115	1055	18586	0.104	0.003<	8.00	0.073	3.30
831205	1130	18595	0.080	0.003	8.04	0.045	3.30

(CONT'D)

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1983 WATER QUALITY DATA REGION 4

24

B.O.W./ SITE: GANANOQUE RIVER
 SAMPLE POINT: AT RR TRESTLE CANADIAN STEEL GANANOQUE
 STATION TYPE: RIVER

STATION ID: 12-0017-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: GANANOQUE RIVER

STORET CODE: 02
 005
 1280

LAT: 44 19 44.00 LONG: 076 10 05.82 U T M: 18 0406850.0 4908850.0 4 REGION: 04 DISTANCE: 0.966

*INTERIM		TEST-NAME:	NNHTFR	PBUT	PH	PPUT	TURB	ZNUT
			NH3-N					
			TOTAL	LEAD		PHOSPHOR		ZINC
SAMPLE		FIL.REAC	UNF.TOT.			UNF.TOT.		UNF.TOT.
DATE	HOUR	MG/L	MG/L			MG/L	TURB'ITY	MG/L
YYMMDD	LMT	AS N	AS PB	PH	AS P	AS P	FTU	AS ZN
SAMPLE	NUMBER							
		MAXIMUM	0.314	0.003	8.36	0.118	12.00	0.020
		ARITH MEAN	0.070<A	0.003	8.00	0.067	5.61	0.006
		GEOM MEAN	0.026<A		8.00	0.063	4.32	0.005
		MINIMUM	0.002	0.003	7.46	0.035	1.20	0.002
		STD DEV (GEOM *)	0.089<A		0.24	0.028	4.15	0.005
# SAMP IN STATISTICS	12		2	12	12	12	12	11
% SAMP (EXCLUDED)			81					

1983 WATER QUALITY DATA REGION 4

25

B.O.W./ SITE: GANANOQUE RIVER
 SAMPLE POINT: HIGHWAY 32, 2 MILES NORTH OF HIGHWAY 401
 STATION TYPE: RIVER

STATION ID: 12-0017-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: GANANOQUE RIVER

STORET CODE: 02
 005
 1280

LAT: 44 21 38.24 LONG: 076 11 24.89 U T M: 18 0405150.0 4912400.0 4 REGION: 04 DISTANCE: 6.115

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830103	1315	18615	0.30	0101	107.6	0.001<	244.0	0.001	5.00	0.225	8
830207	1230	18507	0.30	0101	100.7	0.001<	229.0		8.00	0.325	8
830308	1230	18516	0.30	0101	107.3	0.001<	240.0	0.003	6.00	0.090	4.0
830411	1425	18525	0.30	0101	114.2	0.001<	247.0	0.029	4.00	0.120	8
830503		18534	0.30	0101	102.8	0.001<	226.0	0.005	8.00	0.205	8
830607	1330	18543	0.30	0101	115.1	0.001<	250.0	0.031	3.00	0.060	8
830705	1240	18552	0.30	0101	118.3	0.001<	247.0	0.001	5.00	0.110	8
830802	1300	18561	0.30	0101	106.3	0.001<	226.0	0.003	8.00	0.045	8
830913	1300	18570	0.30	0101	119.7	0.001<	249.0	0.014		0.080	8
831004	1305	18579	0.30	0101	108.6	0.001<	235.0	0.003		0.065	8
831115	1325	18588	0.30	0101	106.7	0.001<	245.0	0.001	7.00	0.090	8
831205	1340	18597	0.30	0101	113.1	0.001<	264.0	0.003	12.04	0.110	8
		MAXIMUM	0.30		119.7		264.0	0.031	12.04	0.325	25.0
		ARITH MEAN	0.30		110.0		241.8	0.009	6.60	0.127	13.0
		GEOM MEAN			109.9		241.6	0.004	6.15	0.108	9.6
		MINIMUM	0.30		100.7		226.0	0.001	3.00	0.045	2.0
		STD DEV (GEOM %)			6.0		11.3	0.011	2.60	0.083	8.9
		# SAMP IN STATISTICS	12		12		12	11	10	12	10
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE	HOUR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
YYMMDD	LMT	MG/L	MG/L		UG/L	MG/L	TURB*ITY	MG/L
		AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
830103	1315	0.002<	0.003<	8.26	0.6<T	0.031	3.90	0.004
830207	1230			7.54	0.2<W	0.030	7.10	
830308	1230	0.002<	0.003<	7.75	0.2<T	0.003<T	1.60	0.001
830411	1425	0.002<	0.003<	8.24	0.2<T	0.030	2.30	0.004
830503		0.002<	0.003<	8.20	0.2<W	0.028	2.40	0.003
830607	1330	0.002<	0.003<	7.96	0.2<W	0.029	1.42	0.015
830705	1240	0.002<	0.003<	8.14	1.2	0.041	0.80	0.002
830802	1300	0.002<	0.003<	8.13	0.2<W	0.031	0.82	0.002
830913	1300	0.002<	0.003<	7.81	-0.4<T	0.043	2.20	0.005
831004	1305	0.002<	0.003	7.91	0.2<W	0.027	1.30	0.008
831115	1325	0.002<	0.003<	7.93	0.2<W	0.028	1.50	0.007
831205	1340	0.003	0.003<	8.01	0.2<W	0.028	1.90	0.011

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

26

B.O.W./ SITE: GANANOQUE RIVER
 SAMPLE POINT: HIGHWAY 32, 2 MILES NORTH OF HIGHWAY 401
 STATION TYPE: RIVER

STATION ID: 12-0017-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: GANANOQUE RIVER

STORET CODE: 02
 005
 1280

LAT: 44 21 38.24 LONG: 076 11 24.89 U T M: 18 0405150.0 4912400.0 4 REGION: 04 DISTANCE: 6.115

*INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB TURB'ITY	ZNUT ZINC	
SAMPLE DATE	HR YYMMDD	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	FTU	UNF.TOT. MG/L AS ZN	
		MAXIMUM	0.003	0.003	8.26	1.2	0.043	7.10	0.015
		ARITH MEAN	0.003	0.003	7.99	0.3<A	0.029<A	2.27	0.006
		GEOM MEAN			7.99		0.026<A	1.87	0.004
		MINIMUM	0.003	0.003	7.54	-0.4	0.003	0.80	0.001
		STD DEV (GEOM *)			0.22		0.010<A	1.74	0.004
# SAMP IN STATISTICS		1	1	12	12	12	12	11	
% SAMP (EXCLUDED)		90	90						

1983 WATER QUALITY DATA REGION 4

27

B.O.W./ SITE: BUTLERS CREEK
 SAMPLE POINT: HIGHWAY 2, BROCKVILLE
 STATION TYPE: RIVER

STATION ID: 12-0034-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: BUTLERS CREEK

STORET CODE: 02
 005
 0840

LAT: 44 35 09.67 LONG: 075 41 29.70 U T M: 18 0445100.0 4936980.0 4 REGION: 04 DISTANCE: 0.483

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP	PBUT
SAMPLE DATE	YEAR	DEPTH	PROJECT	ALK	CONDUCT.	COPPER	DISSOLVED	IRON	STREAM	WATER	LEAD
YYMMDD	LMT	NUMBER	SUB-PROJ CODE	TOTAL MG/L AS CACO3	25C UMHO/CM AT 25 C	UNF.TOT. MG/L AS CU	OXYGEN MG/L AS O	UNF.TOT. MG/L AS FE	COND.	TEMP DEG.C	UNF.TOT. MG/L AS PB
830103	1220	18614	0101	181.9	539.0	0.004	5.00	0.250	8		0.003<
830207	1135	18506	0101	161.2	471.0		5.00	0.290	8		
830308	1140	18515	0101	136.2	416.0	0.029	5.00	0.445	8	3.0	0.003<
830411	1135	18524	0101	156.5	435.0	0.038	2.00	0.350	8	4.0	0.003<
830503		18533	0101	161.2	413.0	0.100	7.00	0.675	8	13.0	0.005
830607	1200	18542	0101	176.0	510.0	0.740	2.00	0.380	8	16.0	0.007
830705	1145	18551	0101	130.0	345.0	0.180	4.00	0.885	8	25.0	0.005
830802	1145	18560	0101	136.9	496.0	0.093		0.565	8	22.0	0.010
830913	1140	18569	0101	111.8	376.0	0.075		0.215	8	20.0	0.005
831004	1215	18578	0101	118.6	415.0	0.027		0.205	8	19.0	0.005
831115	1235	18587	0101	194.4	743.0	0.007	5.00	0.105	8	5.0	0.003<
831205	1240	18596	0101	164.7	646.0	0.019	13.40	0.300		4.0	0.005
MAXIMUM		0.30		194.4	743.0	0.740	13.40	0.885		25.0	0.010
ARITH MEAN		0.30		152.4	483.7	0.119	5.38	0.389		13.1	0.006
GEOM MEAN				150.4	472.6	0.045	4.61	0.335		10.0	
MINIMUM		0.30		111.8	345.0	0.004	2.00	0.105		3.0	0.005
STD DEV (GEOM %)				25.8	114.9	0.212	3.40	0.223		8.5	
# SAMP IN STATISTICS		12		12	12	11	9	12		10	7
% SAMP (EXCLUDED)											36

*INTERIM TEST-NAME:		PH	PHNOL	RSP	ZNUT
SAMPLE DATE	YEAR	PH	PHENOLS UNF-REAC UG/L PHENOL	RESIDUE PARTIC. MG/L	ZINC UNF.TOT. MG/L AS ZN
YYMMDD	LMT	NUMBER			
830103	1220	18614	8.28	0.6<T	5.850
830207	1135	18506	7.91	0.4<T	7.580
830308	1140	18515	7.92	0.8	7.820
830411	1135	18524	8.22	0.6<T	11.800
830503		18533	7.97	0.2<W	26.700
830607	1200	18542	7.96		10.400
830705	1145	18551	7.99	1.4	21.200
830802	1145	18560	7.69	0.4<T	19.900
830913	1140	18569	7.65	0.6<T	20.100
831004	1215	18578	7.94	0.4<T	4.480
831115	1235	18587	8.06	-0.2<T	2.310
831205	1240	18596	8.17	0.2<W	7.170

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

28

B.O.W./ SITE: BUTLERS CREEK
 SAMPLE POINT: HIGHWAY 2, BROCKVILLE
 STATION TYPE: RIVER

STATION ID: 12-0034-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: BUTLERS CREEK

STORET CODE: 02
 005
 0840

LAT: 44 35 09.67 LONG: 075 41 29.70 U T M: 18 0445100.0 4936980.0 4 REGION: 04 DISTANCE: 0.483

*=INTERIM	TEST-NAME:	PH	PHNOL PHENOLS	RSP	ZNUT ZINC
SAMPLE DATE HOUR YYMMDD LMT	SAMPLE NUMBER	PH	UNF-REAC UG/L PHENOL	RESIDUE PARTIC. MG/L	UNF.TOT. MG/L AS ZN
	MAXIMUM	8.28	1.4	26.700	1.000
	ARITH MEAN	7.98	0.5<A	12.109	0.114
	GEOM MEAN	7.98		9.724	0.030
	MINIMUM	7.65	-0.2	2.310	0.008
	STD DEV (GEOM *)	0.19		7.861	0.294
# SAMP IN STATISTICS	12		11	12	11
% SAMP (EXCLUDED)					

1983 WATER QUALITY DATA REGION 4

29

B.O.W./ SITE: RAISIN RIVER
 SAMPLE POINT: 1ST.BEND DOWNSTREAM FROM WILLIAMSTOWN
 STATION TYPE: RIVER FLOW GAUGE FED 02MC001

STATION ID: 12-0073-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 08 36.23 LONG: 074 34 35.21

U T M: 18 0533300.0 4998750.0 4

REGION: 04

DISTANCE: 9.495

*=INTERIM TEST-NAME:			FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
SAMPLE			SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
DATE	HOUR	SAMPLE	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW	
YYMMDD	LMT	NUMBER	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	STREAM
					AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	COND.
830110		19401	0.30	0101	152.5	0.001<	375.0	0.009		1.620	1.500	
830118		19304	0.30	0101	168.4	0.001<	411.0	0.006		0.550	1.650	
830221	1130	19313	0.30	0101	193.6	0.001<	455.0	0.016		1.175	1.400	4
830328		19322	0.30	0101	182.7	0.001<	409.0	0.008		0.800	6.930	
830426	1030	19331	0.30	0101	163.8	0.001<	362.0	0.003		0.745	28.400	
830530	1115	19340	0.30	0101	194.9	0.001<	400.0	0.004	9.00	0.045	2.890	8
	1400	19336	0.30	0101	141.4	0.002	299.0	0.005	9.00	0.790	2.890	8
830628	0950	19349	0.30	0101	210.2	0.001	429.0	0.005	7.00	0.520	0.606	8
830726		19358	0.30	0101	208.8	0.001	421.0	0.003	6.00	0.270	0.088	8
830830	0930	19367	0.30	0101	193.5	0.001	405.0	0.003	6.00	0.325	0.014	8
831012	1140	19376	0.30	0101	191.7	0.001<	421.0	0.000	10.00	0.365	0.180	8
831206	1240	19385	0.30	0101	157.2	0.001<	489.0	0.007	12.00	0.325	5.390	8
MAXIMUM			0.30		210.2	0.002	489.0	0.016	12.00	1.620	28.400	
ARITH MEAN			0.30		179.9	0.001	406.3	0.006	8.43	0.627	4.328	
GEOM MEAN					178.5		403.6		8.18	0.471	1.125	
MINIMUM			0.30		141.4	0.001	299.0	0.000	6.00	0.045	0.014	
STD DEV (GEOM *)					22.6		47.4		2.23	0.436	7.879	
# SAMP IN STATISTICS			12		12	4	12	12	7	12	12	
% SAMP (EXCLUDED)						66						
*=INTERIM TEST-NAME:			FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT		
SAMPLE			WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC		
DATE	HOUR	SAMPLE	TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.	TURB'ITY	UNF.TOT.		
YYMMDD	LMT	NUMBER	DEG.C	MG/L	MG/L	PH	UG/L	MG/L	FTU	MG/L		
				AS NI	AS PB		PHENOL	AS P		AS ZN		
830110		19401	0.2	0.002	0.005	8.31	0.6<T	0.107	19.00	0.010		
830118		19304		0.002<	0.003<	8.14	0.2<W	0.036	9.70	0.004		
830221	1130	19313	0.1	0.003	0.003<	8.55	0.2<W	0.044	18.00	0.014		
830328		19322	0.1	0.002<	0.003<	8.45	0.6<T	0.057	12.20	0.003		
830426	1030	19331	0.6	0.002<	0.003<	7.91	0.2<T	0.050	14.30	0.010		
830530	1115	19340	15.0	0.002<	0.003<	8.08	0.2<W	0.057	10.40	0.010		
	1400	19336	14.0	0.002<	0.013	7.81	0.8	0.052	4.30	0.013		
830628	0950	19349	18.0	0.002<	0.003<	8.00	1.8	0.070	7.50	0.011		
830726		19358	24.0	0.002<	0.003<	8.08	0.2<W	0.037	4.10	0.029		
830830	0930	19367	22.0	0.002<	0.003<	8.09	0.2<W	0.039	4.20	0.018		
831012	1140	19376	10.5	0.002	0.003<	8.12	1.0	0.055	6.60	0.009		
831206	1240	19385	1.0	0.002	0.005	8.41	0.2<W	0.064	7.10	0.004		

(CONTD)

1983 WATER QUALITY DATA REGION 4

30

B.O.W./ SITE: RAISIN RIVER
 SAMPLE POINT: 1ST.BEND DOWNSTREAM FROM WILLIAMSTOWN
 STATION TYPE: RIVER FLOW GAUGE FED 02MC001

STATION ID: 12-0073-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 08 36.23 LONG: 074 34 35.21 U T M: 18 0533300.0 4998750.0 4 REGION: 04 DISTANCE: 9.495

*INTERIM TEST-NAME:		FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HR	WATER TEMP	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L
YYMMDD	LMT	DEG.C	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
MAXIMUM		24.0	0.003	0.013	8.55	1.8	0.107	19.00	0.029
ARITH MEAN		9.6	0.002	0.008	8.16	0.5<A	0.056	9.78	0.011
GEOM MEAN		2.5			8.16	0.4<A	0.053	8.57	0.009
MINIMUM		0.1	0.002	0.005	7.81	0.2	0.036	4.10	0.003
STD DEV (GEOM #)		9.5			0.22	0.5<A	0.019	5.18	0.007
# SAMP IN STATISTICS		11	4	3	12	12	12	12	12
% SAMP (EXCLUDED)			66	75					

1983 WATER QUALITY DATA REGION 4

31

B.O.W./ SITE: RAISIN RIVER
 SAMPLE POINT: 1ST.BRIDGE DOWNSTREAM FROM ST.ANDREWS
 STATION TYPE: RIVER

STATION ID: 12-0073-008-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 06 35.10 LONG: 074 46 23.14 U T M: 18 0517850.0 4994950.0 4 REGION: 04 DISTANCE: 32.669

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	CCNAUR CYANIDE AVAIL	CDUT	COND25	CRUT	CUUT	DO
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CACO3	ARSENIC UNF.TOT. MG/L AS AS	CADMIUM UNF.TOT. MG/L AS CD	CONDUCT. 25C UMHO/CM AT 25 C	CHROMIUM UNF.TOT. MG/L AS CR	COPPER UNF.TOT. MG/L AS CU	DISSOLVED OXYGEN MG/L AS O
830110		19399	0.30	0101	144.3	0.001<		369.0	0.001	0.007	
830118		19301	0.30	0101	168.5	0.001<		424.0	0.001	0.130	
830221	0940	19310	0.30	0101	158.8	0.001<		405.0	0.002	0.019	
830328		19319	0.30	0101	163.5	0.001<		388.0	0.002	0.008	
830426	0920	19328	0.30	0101	150.5	0.001		337.0	0.002	0.003	
830530	0955	19337	0.30	0101	173.2	0.001<		361.0	0.002<	0.003	8.00
830628	0900	19346	0.30	0101	197.1	0.001		423.0	0.006	0.019	7.00
830726	0923	19355	0.30	0101	200.9	0.001<		432.0		0.002	7.00
830830	0830	19364	0.30	0101	178.1	0.001	0.001<M	429.0	0.002	0.009	7.00
831012	1000	19373	0.30	0101	191.4	0.001<		477.0	0.001	0.009	10.00
831206	1110	19382	0.30	0101	133.6	0.001<		461.0	0.001	0.006	14.00
		MAXIMUM	0.30		200.9	0.001	0.001	477.0	0.006	0.130	14.00
		ARITH MEAN	0.30		169.1	0.001	0.001<A	409.6	0.002	0.020	8.83
		GEOM MEAN			167.8			407.6		0.009	8.53
		MINIMUM	0.30		133.6	0.001	0.001	337.0	0.001	0.002	7.00
		STD DEV (GEOM %)			21.8			42.7		0.037	2.79
		# SAMP IN STATISTICS	11		11	3	1	11	9	11	6
		% SAMP (EXCLUDED)				72		40	10		

*INTERIM TEST-NAME:		FEUT	FWSTRC	FWTEMP	NIUT	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	P1ALDR
SAMPLE DATE YYMMDD	HOUR LMT	IRON UNF.TOT. MG/L AS FE	STREAM COND.	WATER TEMP DEG.C	NICKEL UNF.TOT. MG/L AS NI	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PH	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	ALDRIN MG/L
830110		19399	1.175	0.4		0.004<T	0.003<	8.20	0.4<T	0.060	
830118		19301	0.575			0.012	0.003<	7.91	-0.2<T	0.027	
830221	0940	19310	1.150	4		0.078	0.004	7.55	0.2<T	0.100	
830328		19319	0.800	0.2		0.004<T	0.004	8.34	0.4<T	0.044	1<M
830426	0920	19328	0.690	0.5		0.004<T	0.006	7.89	0.2<T	0.037	
830530	0955	19337	0.650	8		0.034	0.012	8.01	0.2<T	0.032	
830628	0900	19346	0.525	8		0.046	0.047	8.00	2.0	0.057	
830726	0923	19355	0.600	8			0.004	8.03	0.2<M	0.071	
830830	0830	19364	0.070	8	0.002<	0.022	0.005	8.07	0.4<T	0.021	
831012	1000	19373	0.070	8		0.016	0.004	8.18	0.6<T	0.025	
831206	1110	19382	0.410	8		0.008	0.003<	7.75	0.2<T	0.026	

(CONT'D)

1983 WATER QUALITY DATA REGION 4

33

B.O.W./ SITE: RAISIN RIVER
 SAMPLE POINT: AT COUNTY ROAD NO 18 EAST OF LUNENBURG
 STATION TYPE: RIVER

STATION ID: 12-0073-010-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 03 34.37 LONG: 074 56 26.25 U T M: 18 0504675.0 4989350.0 4 REGION: 04 DISTANCE: 56.004

*=INTERIM TEST-NAME:			FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE			SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HR	SAMPLE	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03		AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830110		19398	0.30	0101	112.0	0.001<	286.0	0.012		1.275		0.4
830118		19300	0.30	0101	125.3	0.001<	313.0	0.005		0.700		
830221	0900	19309	0.30	0101	117.8	0.001<	309.0	5.800		0.940	4	
830328		19318	0.30	0101	141.6	0.001<	335.0	0.002		0.505		
830426	0900	19327	0.30	0101	133.8	0.001<	296.0	0.010		0.410		0.4
830628	0830	19345	0.30	0101	150.7	0.001	330.0	0.004	9.00	1.625	8	15.0
830726	0850	19354	0.30	0101	169.9	0.001	351.0	0.002	7.00	0.270	8	20.0
830830	0745	19363	0.30	0101	190.0	0.001	386.0	0.006	7.00	0.275	8	18.0
831012	0930	19372	0.30	0101	190.9	0.001<	458.0	0.005	9.00	0.095	8	10.0
831206	1030	19381	0.30	0101	108.3	0.001<	370.0	0.011	13.00	0.330	8	1.0
		MAXIMUM	0.30		190.9	0.001	458.0	5.800	13.00	1.625		20.0
		ARITH MEAN	0.30		144.0	0.001	343.4	0.586	9.00	0.642		9.3
		GEOM MEAN			141.2		340.2	0.011	8.76	0.481		3.7
		MINIMUM	0.30		108.3	0.001	286.0	0.002	7.00	0.095		0.4
		STD DEV (GEOM *)			30.7		51.2	1.832	2.45	0.495		8.7
		# SAMP IN STATISTICS	10		10	3	10	10	5	10		7
		% SAMP (EXCLUDED)				70						
*=INTERIM TEST-NAME:			NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE			NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HR	SAMPLE	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.	TURB'ITY	UNF.TOT.			
YYMMDD	LMT	NUMBER	MG/L	MG/L	PH	UG/L	MG/L	FTU	MG/L			
			AS NI	AS PB		PHENOL	AS P		AS ZN			
830110		19398	0.001	0.004	8.01	0.6<T	0.075	14.30	0.011			
830118		19300	0.002<	0.003<	7.69		0.028	7.40	0.006			
830221	0900	19309	0.002<	0.003<	7.44	1.2	0.110	10.00	0.014			
830328		19318	0.002<	0.009	7.98	1.2	0.056	4.80	0.010			
830426	0900	19327	0.002<	0.007	7.77	0.2<W	0.042	5.70	0.009			
830628	0830	19345	0.002<	0.006	7.71	2.2	0.070	6.00	0.016			
830726	0850	19354	0.002<	0.003<	7.90	0.2<W	0.043	3.50	0.001			
830830	0745	19363	0.006	0.003<	7.87	0.2<W	0.062	3.30	0.018			
831012	0930	19372	0.003	0.003<	7.89	0.4<T	0.035	3.40	0.120			
831206	1030	19381	0.091	0.007	7.60	0.2<T	0.018	3.40	0.014			
		MAXIMUM	0.091	0.009	8.01	2.2	0.110	14.30	0.120			
		ARITH MEAN	0.025	0.007	7.79	0.7<A	0.054	6.18	0.022			
		GEOM MEAN			7.78	0.5<A	0.048	5.45	0.011			
		MINIMUM	0.001	0.004	7.44	0.2	0.018	3.30	0.001			
		STD DEV (GEOM *)			0.18	0.7<A	0.027	3.58	0.035			
		# SAMP IN STATISTICS	4	5	10	9	10	10	10			
		% SAMP (EXCLUDED)	60	50								

1983 WATER QUALITY DATA REGION 4

34

B.O.W./ SITE: NORTH RAISIN RIVER
 SAMPLE POINT: AT FIRST UPSTREAM OF MARTINTOWN
 STATION TYPE: RIVER

STATION ID: 12-0073-011-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 08 59.82 LONG: 074 44 07.47 U T M: 18 0520800.0 4999425.0 4 REGION: 04 DISTANCE: 25.266

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	CDUT	COND25	CRUT	CUUT	DO	FEUT
SAMPLE DATE	HOUR	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL	ARSENIC UNF.TOT.	CADMIUM UNF.TOT.	CONDUCT. 25C	CHROMIUM UNF.TOT.	COPPER UNF.TOT.	DISOLVED OXYGEN	IRON UNF.TOT.
YYMMDD	LMT	NUMBER	CODE	MG/L AS CAC03	MG/L AS AS	MG/L AS CD	UMHO/CM AT 25 C	MG/L AS CR	MG/L AS CU	MG/L AS O	MG/L AS FE
830110		19406	0101	139.4	0.001<		346.0		0.020		1.400
830118		19302	0101	176.2	0.001<	0.0002	434.0	0.008	0.007		0.690
830221	1015	19311	0101	163.7	0.001<		420.0		0.017		1.275
830328		19320	0101	174.0	0.001<		398.0		0.003		0.665
830426	0940	19329	0101	158.3	0.001<		349.0		0.003		0.670
830530	1020	19338	0101	181.0	0.001<		370.0		0.004	8.00	0.520
830628	0915	19347	0101	191.1	0.001		396.0		0.005	7.00	0.250
830726	0942	19356	0101	190.7	0.001<		394.0		0.002	6.00	0.110
830830	0845	19365	0101	163.8	0.001<		403.0		0.001	7.00	0.140
831012	1025	19374	0101	158.7	0.001<		413.0		0.002	9.00	0.275
831206	1140	19383	0101	147.6	0.001<		457.0		0.007	14.00	0.205
MAXIMUM		0.30		191.1	0.001	0.0002	457.0	0.008	0.020	14.00	1.400
ARITH MEAN		0.30		167.7	0.001	0.0002	398.2	0.008	0.006	8.50	0.564
GEOM MEAN				166.9			396.9		0.004	8.17	0.414
MINIMUM		0.30		139.4	0.001	0.0002	346.0	0.008	0.001	6.00	0.110
STD DEV (GEOM *)				16.6			33.8		0.006	2.88	0.441
# SAMP IN STATISTICS		11		11	1	1	11	1	11	6	11
% SAMP (EXCLUDED)					90						

*INTERIM TEST-NAME:		FNSTRC	FNTMP	NIUT	NNHTR	PBUT	PH	PHNOL	PPUT	RSP	TURB
SAMPLE DATE	HOUR	SAMPLE DEPTH	STREAM COND.	WATER TEMP	NICKEL UNF.TOT.	LEAD UNF.TOT.	PH	PHENOLS UNF-REAC	PHOSPHOR UNF.TOT.	RESIDUE PARTIC.	TURB'ITY FTU
YYMMDD	LMT	NUMBER		DEG.C	MG/L AS NI	MG/L AS N	AS PB	UG/L PHENOL	MG/L AS P	MG/L	
830110		19406			0.001			8.31	0.070		25.00
830118		19302		0.4		0.012		7.98	0.033	9.100	12.50
830221	1015	19311	4		0.002<			7.79	0.930		21.00
830328		19320			0.002<			8.51	0.055		10.20
830426	0940	19329		0.5	0.002<			8.00	0.052		12.50
830530	1020	19338	8	15.0	0.002			8.12	0.037		7.30
830628	0915	19347	8	19.0	0.017			7.94	0.050		3.40
830726	0942	19356	8	25.0	0.002<			7.79	0.028		2.50
830830	0845	19365	8	20.0	0.002<			7.91	0.038		3.20
831012	1025	19374	8	10.5	0.002<			7.96	0.036		4.00
831206	1140	19383	8	1.0	0.002			8.30	0.017		4.20

(CONT'D)

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1983 WATER QUALITY DATA REGION 4

35

B.O.W./ SITE: NORTH RAISIN RIVER
 SAMPLE POINT: AT FIRST UPSTREAM OF MARTINTOWN
 STATION TYPE: RIVER

STATION ID: 12-0073-011-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 08 59.82 LONG: 074 44 07.47 U T M: 18 0520800.0 4999425.0 4 REGION: 04 DISTANCE: 25.266

*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	RSP	TURB	
SAMPLE DATE	HOUR	SAMPLE NUMBER	STREAM COND.	WATER TEMP DEG.C	NICKEL UNF.TOT. MG/L AS NI	LEAD FIL.REAC MG/L AS N	UNF.TOT. MG/L AS PB	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	RESIDUE PARTIC. MG/L	TURB'ITY FTU	
MAXIMUM				25.0	0.017	0.012	0.010	8.51	2.0	0.930	9.100	25.00
ARITH MEAN				11.4	0.005	0.012	0.008	8.06	0.5<A	0.122	9.100	9.62
GEOM MEAN				4.8				8.05	0.3<A	0.052		7.22
MINIMUM				0.4	0.001	0.012	0.006	7.79	0.2	0.017	9.100	2.50
STD DEV (GEOM *)				9.8				0.23	0.6<A	0.268		7.62
# SAMP IN STATISTICS				8	4	1	5	11	11	11	1	11
% SAMP (EXCLUDED)					60		54					

*INTERIM TEST-NAME: ZNUT
 ZINC
 UNF.TOT.
 MG/L
 AS ZN

SAMPLE DATE	HOUR	SAMPLE NUMBER	UNF.TOT. MG/L AS ZN
830110		19406	0.008
830118		19302	0.008
830221	1015	19311	0.021
830328		19320	0.007
830426	0940	19329	0.008
830530	1020	19338	0.010
830628	0915	19347	0.006
830726	0942	19356	0.007
830830	0845	19365	0.002
831012	1025	19374	0.047
831206	1140	19383	0.019

MAXIMUM 0.047
 ARITH MEAN 0.013
 GEOM MEAN 0.009
 MINIMUM 0.002
 STD DEV (GEOM *) 0.013
 # SAMP IN STATISTICS 11
 % SAMP (EXCLUDED)

1983 WATER QUALITY DATA REGION 4

36

B.O.W./ SITE: SOUTH RAISIN RIVER
 SAMPLE POINT: AT CO.RD.NO.20 SOUTH OF CASHIONGLEN
 STATION TYPE: RIVER

STATION ID: 12-0073-015-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST LAWRENCE RIVER
 TERM STREAM: RAISIN RIVER

STORET CODE: 02
 005
 0250

LAT: 45 06 00.24 LONG: 074 40 37.83 U T M: 18 0525400.0 4993900.0 4 REGION: 04 DISTANCE: 17.863

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
			AS CAC03		AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830110		19400	0101	173.6	0.001<	519.0	0.016		1.800		0.2
830118		19303	0101	247.5	0.001<	684.0	0.005		0.595		
830221	1100	19312	0101	202.4	0.001<	635.0	0.011		0.620	4	0.1
830328		19321	0101	220.2	0.001<	598.0	0.003		0.695		0.2
830426	1000	19330	0101	194.5	0.001<	504.0	0.003		0.790		0.5
830530	1040	19339	0101	255.3	0.001<	585.0	0.004	9.00	2.400	8	14.0
830628	0925	19348	0101	215.7	0.001	572.0	0.005	8.00	3.750	8	18.0
830726	0957	19357	0101	132.5	0.001<	452.0	0.004	6.00	3.925	8	23.0
830830	0905	19366	0101	116.9	0.001<	376.0	0.002	5.00	2.025	8	20.0
831012	1110	19375	0101	237.2	0.001<	1089.0	0.004	9.00	1.700	8	10.5
831206	1225	19384	0101	214.4	0.001<	718.0	0.007	12.00	0.510	8	1.0
		MAXIMUM	0.30	255.3	0.001	1089.0	0.016	12.00	3.925		23.0
		ARITH MEAN	0.30	200.9	0.001	612.0	0.006	8.17	1.710		8.7
		GEOM MEAN		195.7		590.1	0.005	7.85	1.328		2.2
		MINIMUM	0.30	116.9	0.001	376.0	0.002	5.00	0.510		0.1
		STD DEV (GEOM *)		44.4		186.7	0.004	2.48	1.241		9.4
		# SAMP IN STATISTICS	11	11	1	11	11	6	11		10
		% SAMP (EXCLUDED)			90						

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE	HOUR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	TURB*ITY	MG/L
		AS NI	AS PB		PHENOL	AS P	FTU	AS ZN
830110		0.002	0.007	8.36	1.0	0.090	18.00	0.016
830118		0.002	0.003<	8.14	-0.4<T	0.032	11.10	0.003
830221	1100	0.002	0.003<	7.57	0.8	0.148	9.60	0.014
830328		0.002<	0.003<	8.49	0.4<T	0.056	14.00	0.009
830426	1000	0.002<	0.003<	7.89	0.2<W	0.046	14.30	0.007
830530	1040	0.002<	0.003<	8.13	0.2<W	0.105	40.00	0.011
830628	0925	0.002	0.003<	7.62	2.2	0.195	56.00	0.027
830726	0957	0.003	0.003<	7.72	0.2<W	0.155	59.00	0.023
830830	0905	0.002<	0.004	7.93	0.2<W	0.095	33.00	0.009
831012	1110	0.002	0.003<	8.17	1.4	0.096	32.00	0.010
831206	1225	0.002	0.021	8.03	0.2<W	0.035	8.30	0.007

(CONT'D)

STORET CODE: 02
005
0250

MAXIMUM	0.003	0.021	8.49	2.2	0.195	59.00	0.027
ARITH MEAN	0.002	0.011	8.00	0.6<A	0.096	26.85	0.012
GEOM MEAN			8.00		0.082	21.46	0.011
MINIMUM	0.002	0.004	7.57	-0.4	0.032	8.30	0.003
STD DEV (GEOM *)			0.29		0.053	18.47	0.007
# SAMP IN STATISTICS	7	3	11	11	11	11	11
% SAMP (EXCLUDED)	36	72					

1983 WATER QUALITY DATA REGION 4

38

B.O.W./ SITE: DELISLE RIVER
 SAMPLE POINT: AT CNR TRESTLE DNSTR.OF ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST.LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 19 21.44 LONG: 074 36 09.17 U T M: 18 0531150.0 5018650.0 4 REGION: 04 DISTANCE: 44.578

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	BOD5	CLIDUR	COND25	CUUT	DO	FEUT
						BOD					
						5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	IRON
						TOT.DEM.	UNF.REAC	25C	UNF.TOT.	OXYGEN	UNF.TOT.
						MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L
						AS O	AS CL-	AT 25 C	AS CU	AS O	AS FE
SAMPLE DATE	YMMDD LMT	YMMDD LMT	NUMBER	DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	ARSENIC UNF.TOT. MG/L AS AS				
830110		19404	0.30	0101	140.6		0.80	8.15	341.0	0.008	
830118		19307	0.30	0101	182.8			25.10	484.0	0.037	
830221	1345	19317	0.30	0101	188.4	0.001<			423.0	0.006	1.075
830328		19355	0.30	0101	172.4		0.37<T	11.60	386.0	0.018	
830426	1205	19335	0.30	0101	149.9		0.73	2.32	301.0	0.009	
830530	1400	19344	0.30	0101	191.2		5.20	1.10	350.0	0.006	8.00
830628	1140	19353	0.30	0101	168.3		0.69	11.20	368.0	0.003	8.00
830726	1200	19362	0.30	0101	223.2			4.71	444.0	0.009	6.00
830830	1110	19371	0.30	0101	185.1		2.90	4.56	395.0	0.004	6.00
831012	1335	19380		0101	172.0		0.73	5.51	520.0	0.005	
831206	1415	19389	0.30	0101	146.0		2.24	22.79	487.0	0.006	14.00
		MAXIMUM	0.30		223.2		5.20	25.10	520.0	0.037	14.00
		ARITH MEAN	0.30		174.5		1.71<A	9.70	409.0	0.010	8.40
		GEOM MEAN			173.1		1.18<A	6.70	403.7	0.008	7.97
		MINIMUM	0.30		140.6		0.37	1.10	301.0	0.003	6.00
		STD DEV (GEOM *)			23.8		1.67<A	8.26	69.0	0.010	3.29
		# SAMP IN STATISTICS	10		11		8	10	11	11	5
		% SAMP (EXCLUDED)									1

*=INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT	NNHTFR	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
					NH3-N						
					TOTAL	LEAD					
					UNF.TOT.	UNF.TOT.		PHENOLS	PHOSPHOR		ZINC
					MG/L	MG/L		UNF-REAC	UNF.TOT.		UNF.TOT.
					AS NI	AS N		UG/L	MG/L	TURB'ITY	MG/L
								PHENOL	AS P	FTU	AS ZN
SAMPLE DATE	YMMDD LMT	YMMDD LMT	NUMBER	STREAM COND.	WATER TEMP DEG.C						
830110		19404			0.3		0.004<T	0.003<	8.40	0.033	20.00
830118		19307					0.226	0.003<	7.65	0.350	15.10
830221	1345	19317	4		0.003<		0.003	8.27	0.041	20.00	0.008
830328		19355					0.004<T	0.009	8.35	0.048	16.00
830426	1205	19335			0.6		0.004<T	0.003<	8.18	0.062	32.00
830530	1400	19344	8		14.0		0.026	0.006	8.03	0.183	80.00
830628	1140	19353	8		20.0		0.022	0.003<	7.87	0.071	10.00
830726	1200	19362	8		20.0		0.006<T	0.003<	7.89	0.185	95.00
830830	1110	19371	8		22.0		0.078	0.004	8.02	0.220	103.00
831012	1335	19380					0.004<T	0.003<	8.49	0.038	22.00
831206	1415	19389	8		1.0		0.006	0.005	7.98	0.146	5.90

(CONT'D)

1983 WATER QUALITY DATA REGION 4

39

B.O.W./ SITE: DELISLE RIVER
 SAMPLE POINT: AT CNR TRESTLE DNSTR.OF ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST.LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 19 21.44 LONG: 074 36 09.17

U T M: 18 0531150.0 5018650.0 4

REGION: 04

DISTANCE: 44.578

*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT	NNHTR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE			WATER	NICKEL	FIL.REAC	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE	HOUR	SAMPLE	TEMP	UNF.TOT.	MG/L	UNF.TOT.	MG/L	UNF-REAC	UNF.TOT.	TURB'ITY	UNF.TOT.
YYMMDD	LMT	NUMBER	DEG.C	AS NI	AS N	AS PB	PH	UG/L	MG/L	FTU	MG/L
								PHENOL	AS P		AS ZN
MAXIMUM			22.0		0.226	0.009	8.49	0.2	0.350	103.00	0.090
ARITH MEAN			11.1		0.038<A	0.005	8.10	0.2<A	0.125	38.09	0.017
GEOM MEAN			4.2		0.012<A		8.10		0.092	25.64	0.009
MINIMUM			0.3		0.004	0.003	7.65	0.2	0.033	5.90	0.002
STD DEV (GEOM *)			10.1		0.070<A		0.26		0.101	36.06	0.025
# SAMP IN STATISTICS			7		10	5	11	1	11	11	11
% SAMP (EXCLUDED)						54					

1983 WATER QUALITY DATA REGION 4

40

B.O.W./ SITE: DELISLE RIVER
 SAMPLE POINT: AT FIRST BRIDGE UPSTR.OF ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST.LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 19 42.70 LONG: 074 37 06.44 U T M: 18 0529900.0 5019300.0 4 REGION: 04 DISTANCE: 46.509

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FMSTRC	FWTEMP	
SAMPLE DATE	YMMDD LMT	SAMPLE NUMBER	DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	ARSENIC UNF.TOT. MG/L AS AS	CONDUCT. 25C UNF.TOT. UMHO/CM AT 25 C	COPPER UNF.TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	IRON UNF.TOT. MG/L AS FE	STREAM COND.	WATER TEMP DEG.C
830110		19405	0.30	0101	139.3	0.001<	352.0	0.006		1.680		0.1
830118		19308	0.30	0101	127.6	0.001<	281.0	0.036		0.220		
830221	1330	19316	0.30	0101	186.3	0.001<	422.0	0.009		1.080	4	
830328		19326	0.30	0101	171.7	0.001<	342.0	0.014		4.075		
830426	1145	19334	0.30	0101	141.8	0.001<	313.0	0.010		0.525		0.7
830530	1345	19343	0.30	0101	168.4	0.001<	343.0	0.004	8.00	0.935	8	14.0
830628	1120	19352	0.30	0101	218.3	0.001	403.0	0.004	7.00	2.450	8	18.0
830726	1150	19361	0.30	0101	140.7	0.001<	310.0	0.003	6.00	5.800	8	22.0
830830	1050	19370	0.30	0101	160.9	0.001<	376.0	0.002	6.00	0.355	8	20.0
831012	1310	19379	0.30	0101	165.5	0.001<	442.0	0.003	15.00	0.455	8	11.0
831206	1350	19388	0.30	0101	142.3	0.001<	435.0	0.005	14.00	0.265	8	1.0
		MAXIMUM	0.30		218.3	0.001	442.0	0.036	15.00	5.800		22.0
		ARITH MEAN	0.30		160.3	0.001	365.4	0.009	9.33	1.622		10.8
		GEOM MEAN			158.4		361.7	0.006	8.67	0.936		4.1
		MINIMUM	0.30		127.6	0.001	281.0	0.002	6.00	0.220		0.1
		STD DEV (GEOM *)			26.1		54.4	0.010	4.08	1.814		9.1
		# SAMP IN STATISTICS	11		11	1	11	11	6	11		8
		% SAMP (EXCLUDED)				90						

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	YMMDD LMT	NICKEL UNF.TOT. MG/L AS NI	LEAD UNF.TOT. MG/L AS PB	PH	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
830110		19405	0.002	0.005	7.95	0.8	0.060	0.008
830118		19308	0.002<	0.003<	8.08	0.2<T	0.027	0.004
830221	1330	19316	0.002<	0.019	8.21	0.2<M	0.044	0.011
830328		19326	0.003	0.003<	8.25	0.6<T	0.112	0.014
830426	1145	19334	0.002<	0.003<	8.14	0.2<T	0.040	0.005
830530	1345	19343	0.002<	0.003<	8.16	0.2<M	0.055	0.002
830628	1120	19352	0.002<	0.006	8.53	2.4	0.042	0.005
830726	1150	19361	0.003	0.003	7.52	0.2<M	0.340	0.014
830830	1050	19370	0.002<	0.003<	7.68	0.2<M	0.039	0.003
831012	1310	19379	0.002<	0.003<	8.03	0.6<T	0.052	0.008
831206	1350	19388	0.002	0.017	7.96	0.2<M	0.024	0.003

(CONT'D)

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1983 WATER QUALITY DATA REGION 4

41

B.O.W./ SITE: DELISLE RIVER
SAMPLE POINT: AT FIRST BRIDGE UPSTR.OF ALEXANDRIA
STATION TYPE: RIVER

STATION ID: 12-0086-002-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: ST. LAWRENCE RIVER
TERM STREAM: DELISLE RIVER

STORET CODE: 02
005
0040

LAT: 45 19 42.70 LONG: 074 37 06.44 U T M: 18 0529900.0 5019300.0 4 REGION: 04 DISTANCE: 46.509

*INTERIM		TEST-NAME:	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HOUR	SAMPLE YMMDD	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	TURB'ITY FTU	UNF.TOT MG/L AS ZN
			0.003	0.019	8.53	2.4	0.340	65.00	0.014
			0.002	0.010	8.05	0.5<A	0.076	21.32	0.007
					8.04	0.3<A	0.054	12.07	0.006
			0.002	0.003	7.52	0.2	0.024	1.90	0.002
					0.27	0.7<A	0.091	23.23	0.004
# SAMP IN STATISTICS		4		5	11	11	11	11	11
% SAMP (EXCLUDED)		63		54					

1983 WATER QUALITY DATA REGION 4

42

B.O.W./ SITE: GARRY RIVER
 SAMPLE POINT: AT CNR TRESTLE ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST.LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 18 59.06 LONG: 074 37 38.89 U T M: 18 0529200.0 5017950.0 4 REGION: 04 DISTANCE: 48.279

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE HOUR		DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD LMT		M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830110		19403	0101	139.7	0.001<	334.0	0.009		0.780		
830118		19306	0101	143.3	0.001<	339.0	0.007		0.280		
830221	1300	19315	0101	133.8	0.001<	380.0	0.058		0.530	4	0.4
830328		19324	0101	123.7	0.001<	513.0	0.018		0.905		0.1
830426	1130	19333	0101	108.4	0.001<	243.0	0.001		0.100		0.8
830530	1310	19342	0101	91.6	0.001<	209.0	0.005	10.00	0.630	8	15.0
830628	1105	19351	0101	106.4	0.001	277.0	0.005	8.00	0.260	8	19.0
830726	1137	19360	0101	118.2	0.001<	268.0	0.013	6.00	1.375	8	23.0
830830	1030	19369	0101	82.6	0.001<	267.0	0.001	7.00	0.330	8	20.0
831012	1255	19378	0101	109.8	0.001<	320.0	0.003	10.00	0.735	8	10.5
831206	1335	19387	0101	121.9	0.001<	334.0	0.004	13.00	0.140	8	1.0
MAXIMUM		0.30		143.3	0.001	513.0	0.058	13.00	1.375		23.0
ARITH MEAN		0.30		116.3	0.001	316.7	0.011	9.00	0.551		10.0
GEOM MEAN				114.8		308.1	0.006	8.71	0.424		3.3
MINIMUM		0.30		82.6	0.001	209.0	0.001	6.00	0.100		0.1
STD DEV (GEOM *)				19.0		81.9	0.016	2.53	0.384		9.6
# SAMP IN STATISTICS		11		11	1	11	11	6	11		9
% SAMP (EXCLUDED)					90						
*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
SAMPLE		UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.			
DATE HOUR		MG/L	MG/L		UG/L	MG/L		MG/L			
YYMMDD LMT		AS NI	AS PB	PH	PHENOL	AS P	TURB*ITY	AS ZN			
830110		0.001	0.008	8.27	0.2<T	0.078	6.10	0.013			
830118		0.002<	0.003<	7.75	0.2<W	0.125	2.60	0.004			
830221	1300	0.002<	0.012	7.80	0.2<T	0.275	7.30	0.033			
830328		0.002<	0.034	8.35	1.2	0.075	32.00	0.027			
830426	1130	0.002<	0.009	7.94	0.2<W	0.029	1.70	0.008			
830530	1310	0.002<	0.024	8.37	0.4<T	0.099	4.50	0.023			
830628	1105	0.002<	0.006	7.90	2.6	0.047	1.50	0.016			
830726	1137	0.004	0.059	7.40	0.2<T	0.715	18.00	0.096			
830830	1030	0.002<	0.004	7.71	1.2	0.072	5.50	0.003			
831012	1255	0.002<	0.003<	7.66	1.0	0.093	9.00	0.008			
831206	1335	0.001	0.004	7.86	0.4<T	0.027	3.20	0.004			

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

43

B.O.W./ SITE: GARRY RIVER
 SAMPLE POINT: AT CNR TRESTLE ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST.LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 18 59.06 LONG: 074 37 38.89 U T M: 18 0529200.0 5017950.0 4 REGION: 04 DISTANCE: 48.279

*INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HOUR	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L
YYMMDD	LMT	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
		MAXIMUM	0.004	0.059	8.37	2.6	0.715	32.00
		ARITH MEAN	0.002	0.018	7.91	0.7<A	0.149	8.31
		GEOM MEAN			7.90	0.5<A	0.091	5.43
		MINIMUM	0.001	0.004	7.40	0.2	0.027	1.50
		STD DEV (GEOM *)			0.31	0.8<A	0.200	9.13
		# SAMP IN STATISTICS	3	9	11	11	11	11
		% SAMP (EXCLUDED)	72	18				

1983 WATER QUALITY DATA REGION 4

44

B.O.W./ SITE: GARRY RIVER
 SAMPLE POINT: AT FIRST BRIDGE UPSTR.OF ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST.LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 18 08.95 LONG: 074 38 15.95 U T M: 18 0528400.0 5016400.0 4 REGION: 04 DISTANCE: 50.049

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830110		19402	0.30	0101	117.8	0.001<	263.0	0.010	0.260		0.4
830118		19305	0.30	0101	181.7	0.001<	415.0	0.008	0.655		
830221	1230	19314	0.30	0101	150.4	0.001<	310.0	0.026	0.220	4	0.1
830328		19323	0.30	0101	118.2	0.001<	246.0	0.022	0.085		0.1
830426	1115	19332	0.30	0101	98.8	0.001<	215.0	0.001	0.065		0.6
830530	1310	19341	0.30	0101	91.4	0.001<	190.0	0.002	7.00	8	15.0
830628	1050	19350	0.30	0101	72.8	0.001<	153.0	0.011	7.00	8	18.0
830726	1125	19359	0.30	0101	70.7	0.001<	151.0	0.001<	6.00	8	23.0
830830	1015	19368	0.30	0101	74.9	0.001<	157.0	0.001<	6.00	8	20.0
831012	1235	19377	0.30	0101	88.5	0.001<	231.0	0.001	8.00	8	11.0
831206	1320	19386	0.30	0101	118.0	0.001<	269.0	0.003	13.00	8	1.0
		MAXIMUM	0.30		181.7		415.0	0.026	13.00		23.0
		ARITH MEAN	0.30		107.6		236.4	0.009	7.83		8.9
		GEOM MEAN			103.0		225.5		7.54		2.2
		MINIMUM	0.30		70.7		151.0	0.001	6.00		0.1
		STD DEV (GEOM *)			34.6		79.0		2.64		9.5
		# SAMP IN STATISTICS	11		11		11	9	6	11	10
		% SAMP (EXCLUDED)					18				
*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.			
YYMMDD	LMT	MG/L	MG/L		UG/L	MG/L		MG/L			
		AS NI	AS PB	PH	PHENOL	AS P	TURB'ITY	AS ZN			
							FTU				
830110		19402	0.001<	0.005	8.10	0.4<T	0.018	2.70	0.004		
830118		19305	0.002<	0.023	8.13	0.2<W	0.032	11.20	0.010		
830221	1230	19314	0.002<	0.003<	7.59	0.2<W	0.022	1.90	0.008		
830328		19323	0.002<	0.003<	8.37	0.4<T	0.017	1.20	0.004		
830426	1115	19332	0.002<	0.003<	7.93	0.4<T	0.016	0.99	0.008		
830530	1310	19341	0.002<	0.003<	7.55	0.2<T	0.032	1.40	0.003		
830628	1050	19350	0.002<	0.003<	7.28	2.6	0.032	1.00	0.011		
830726	1125	19359	0.002<	0.003<	7.13	0.2<W	0.021	0.80	0.001		
830830	1015	19368	0.002<	0.003<	7.35	0.2<T	0.039	2.30	0.002		
831012	1235	19377	0.002<	0.003<	7.55	0.2<T	0.022	1.01	0.005		
831206	1320	19386	0.002	0.003<	8.18	0.2<W	0.011	0.98	0.003		

(CONT'D)

1983 WATER QUALITY DATA REGION 4

45

B.O.W./ SITE: GARRY RIVER
 SAMPLE POINT: AT FIRST BRIDGE UPSTR. OF ALEXANDRIA
 STATION TYPE: RIVER

STATION ID: 12-0086-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: ST. LAWRENCE RIVER
 TERM STREAM: DELISLE RIVER

STORET CODE: 02
 005
 0040

LAT: 45 18 08.95 LONG: 074 38 15.95

U T M: 18 0528400.0 5016400.0 4

REGION: 04

DISTANCE: 50.049

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE		UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
DATE	HOUR	MG/L	MG/L		UG/L	MG/L	TURB*ITY	MG/L
YYMMDD	LMT	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
		0.002	0.023	8.37	2.6	0.039	11.20	0.011
	MAXIMUM	0.002	0.014	7.74	0.5<A	0.024	2.32	0.005
	ARITH MEAN			7.73	0.3<A	0.022	1.60	0.004
	GEOM MEAN	0.002	0.005	7.13	0.2	0.011	0.80	0.001
	MINIMUM			0.42	0.7<A	0.009	3.01	0.003
	STD DEV (GEOM *)							
	# SAMP IN STATISTICS	1	2	11	11	11	11	11
	% SAMP (EXCLUDED)	90	81					

1983 WATER QUALITY DATA REGION 4

46

B.O.W./ SITE: PICTON CREEK
 SAMPLE POINT: AT CONSERVATION AREA POUND
 STATION TYPE: RIVER

STATION ID: 17-0008-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: PICTON CREEK

STORET CODE: 02
 004
 1710

LAT: 44 00 14.81 LONG: 077 07 14.75 U T M: 18 0329975.0 4874300.0 4 REGION: 04 DISTANCE: 1.287

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830125	0830	17800	0101	207.1	0.001<	422.0	0.011	9.00	0.190	3 8	1.0
830222	0830	17808	0101	216.8	0.001<	434.0	0.006		0.160	3 8	
830329	0815	17816	0101	203.4	0.001<	406.0	0.004	10.00	0.140	4	1.0
830503	0845	17824	0101	203.5	0.001<	389.0	0.002	8.00	0.110	8	11.5
830531	1335	17832	0101	236.0	0.001<	429.0	0.002	10.00	0.475	6 8	18.0
830628	0825	17840	0101	153.1	0.001<	293.0	0.002	4.50	0.253	6 8	21.0
830726	0830	17848	0101	144.0	0.001	293.0	0.001<	4.00	0.565	6 8	23.0
830830	0815	17856	0101	114.5	0.001<	281.0	0.025	2.00	0.600	6 8	23.0
831003	0900	17864	0101	69.3	0.001	225.0	0.280	7.50	0.850	6 8	18.0
831025		17872	0101	55.9	0.001<	234.0	0.000	9.00	0.480	6 8	8.0
831129	0820	17880	0101	176.7	0.001<	420.0	0.007	6.00	0.485	6 8	3.5
		MAXIMUM	0.30	236.0	0.001	434.0	0.280	10.00	0.850		23.0
		ARITH MEAN	0.30	161.8	0.001	347.8	0.034	7.00	0.392		12.8
		GEOM MEAN		148.2		338.2		6.34	0.321		8.1
		MINIMUM	0.30	55.9	0.001	225.0	0.000	2.00	0.110		1.0
		STD DEV (GEOM *)		60.6		82.7		2.76	0.237		8.9
		* SAMP IN STATISTICS	11	11	2	11	10	10	11		10
		% SAMP (EXCLUDED)			81		9				
*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.			
YYMMDD	LMT	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L			
		AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN			
830125	0830	0.001<	0.003<	7.84	0.2<T	0.023	2.70	0.005			
830222	0830	0.002<	0.003<	8.08		0.018	1.70	0.005			
830329	0815	0.002<	0.003<	8.04		0.018	3.20	0.005			
830503	0845	0.006	0.003<	8.42	-0.2<T	0.013	0.70	0.002			
830531	1335	0.002<	0.003<	7.99		0.049	5.30	0.001<			
830628	0825	0.031	0.003<		2.2	0.010<T	2.50	0.007			
830726	0830	0.002<	0.003<	7.32	0.4<T	0.035	3.00	0.001<			
830830	0815	0.002<	0.003<	7.49	0.4<T	0.078	4.60	0.005			
831003	0900	0.950	0.700	7.72	0.2<M	0.087	9.60				
831025		0.000	0.000	7.46	0.2<M	0.074	7.70	0.000			
831129	0820	0.002<	0.010	7.95	0.2<M	0.049	1.90	0.045			

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

47

B.O.W./ SITE: PICTON CREEK
SAMPLE POINT: AT CONSERVATION AREA POUND
STATION TYPE: RIVER

STATION ID: 17-0008-001-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: LAKE ONTARIO
TERM STREAM: PICTON CREEK

STORET CODE: 02
004
1710

LAT: 44 00 14.81 LONG: 077 07 14.75 U T M: 18 0329975.0 4874300.0 4 REGION: 04 DISTANCE: 1.287

*=INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB TURBIDITY	ZNUT ZINC
SAMPLE DATE	HOUR LMT	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	FTU	UNF.TOT. MG/L AS ZN
		MAXIMUM	0.950	0.700	8.42	2.2	0.087	9.60
		ARITH MEAN	0.247	0.237	7.83	0.4<A	0.041<A	3.90
		GEOM MEAN			7.82	0.032<A	0.010	3.11
		MINIMUM	0.000	0.000	7.32	-0.2	0.010	0.70
		STD DEV (GEOM *)			0.34	0.028<A	2.70	0.000
		# SAMP IN STATISTICS	4	3	10	8	11	8
		% SAMP (EXCLUDED)	63	72				20

1983 WATER QUALITY DATA REGION 4

48

B.O.W./ SITE: DEMORESTVILLE CREEK
 SAMPLE POINT: AT COUNTY ROAD 14
 STATION TYPE: RIVER FLOW GAUGE FED 02HE003

STATION ID: 17-0014-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: DEMORESTVILLE CREEK

STORET CODE: 02
 004
 1460

LAT: 44 05 26.28 LONG: 077 12 39.53 U T M: 18 0323000.0 4884100.0 4 REGION: 04 DISTANCE: 4.828

*INTERIM		TEST-NAME:	FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
SAMPLE			SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
DATE	HOUR		DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW	
YYMMDD	LMT	SAMPLE	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	STREAM
		NUMBER			AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	COND.
830125	1130	17807	0.30	0101	207.7	0.001<	439.0	0.028	2.00	0.150	0.212	6 8
830222		17815	0.30	0101	155.7		334.0			0.085	0.125	6 8
830329	1128	17823	0.30	0101	133.3	0.001<	284.0	0.005	10.00	0.065	0.432	6 8
830503	1120	17831	0.30	0101	139.4	0.001<	287.0	0.002	9.00	0.095	0.697	8
830531	0910	17839	0.30	0101	153.6	0.001<	303.0	0.003	5.00	0.145	0.204	6 8
830628	1130	17847	0.30	0101	168.5	0.001<	318.0	0.007	12.00	0.249	0.044	6 8
830726	1130	17855	0.30	0101	126.4	0.001	248.0	0.001	8.00	0.580	0.012	6 8
830830	1130	17863	0.30	0101	103.8	0.001<	266.0	0.001<	4.00	0.250	0.012	6 8
831003	1310	17871	0.30	0101	71.2	0.001<	414.0	0.002	13.00	0.130	0.011	6 8
831025	1146	17879	0.30	0101				0.000	9.00		0.019	6 8
831129	1140	17887	0.30	0101	98.6	0.001<	273.0	0.002	8.00	0.140	0.341	6 8
MAXIMUM			0.30		207.7	0.001	439.0	0.028	13.00	0.580	0.697	
ARITH MEAN			0.30		135.8	0.001	316.6	0.006	8.00	0.189	0.192	
GEOM MEAN					130.5		311.4		7.10	0.154	0.079	
MINIMUM			0.30		71.2	0.001	248.0	0.000	2.00	0.065	0.011	
STD DEV (GEOM *)					38.9		63.3		3.46	0.151	0.221	
# SAMP IN STATISTICS			11		10	1	10	9	10	10	11	
% SAMP (EXCLUDED)						88		10				
*INTERIM		TEST-NAME:	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT		
SAMPLE			WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC		
DATE	HOUR		TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.		
YYMMDD	LMT	SAMPLE	DEG.C	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L		
		NUMBER		AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN		
830125	1130	17807	2.0	0.003	0.003	7.40	0.2<M	0.013	1.50	0.017		
830222		17815	5.0			7.88		0.013	0.80			
830329	1128	17823	1.0	0.002<	0.003<	8.20		0.014	0.50	0.003		
830503	1120	17831	15.5	0.002<	0.003<	7.73	0.2<T	0.020	1.20	0.002		
830531	0910	17839	16.0	0.002<	0.003<	7.41	0.2<M	0.028	0.66	0.002		
830628	1130	17847	22.0	0.002<	0.003<		1.0	0.047	0.80	0.001		
830726	1130	17855	25.0	0.002<	0.003<	7.46	0.2<T	0.050	1.80	0.001<		
830830	1130	17863	25.0	0.002<	0.003<	7.80	0.8	0.053	1.88	0.003		
831003	1310	17871	21.0	0.002<	0.001<	8.38	0.4<T	0.050	0.96	0.001		
831025	1146	17879	9.0	0.000	0.000		0.6<T			0.000		
831129	1140	17887	3.0	0.002<	0.003<	7.51	0.2<T	0.028	0.71	0.006		

(CONTD)

1983 WATER QUALITY DATA REGION 4

49

B.O.M./ SITE: DEMORESTVILLE CREEK
 SAMPLE POINT: AT COUNTY ROAD 14
 STATION TYPE: RIVER FLOW GAUGE FED 02HE003

STATION ID: 17-0014-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: DEMORESTVILLE CREEK

STORET CODE: 02
 004
 1460

LAT: 44 05 26.28 LONG: 077 12 39.53 U T M: 18 0323000.0 4884100.0 4 REGION: 04 DISTANCE: 4.828

*INTERIM TEST-NAME:		FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HOUR YYMMDD LMT	WATER TEMP DEG.C	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	TURB'ITY FTU	UNF.TOT. MG/L AS ZN
MAXIMUM		25.0	0.003	0.003	8.38	1.0	0.053	1.88	0.017
ARITH MEAN		13.1	0.001	0.001	7.75	0.4<A	0.032	1.08	0.004
GEOM MEAN		8.6			7.75	0.3<A	0.027	0.99	
MINIMUM		1.0	0.000	0.000	7.40	0.2	0.013	0.50	0.000
STD DEV (GEOM *)		9.5			0.35	0.3<A	0.017	0.49	
# SAMP IN STATISTICS		11	2	2	9	9	10	10	9
% SAMP (EXCLUDED)			80	80					10

1983 WATER QUALITY DATA REGION 4

50

B.O.W./ SITE: SAWGUIN CREEK
 SAMPLE POINT: AT COUNTY ROAD 28
 STATION TYPE: RIVER

STATION ID: 17-0016-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: SAWGUIN CREEK

STORET CODE: 02
 004
 1400

LAT: 44 06 11.21 LONG: 077 23 44.63 U T M: 18 0308250.0 4885900.0 4 REGION: 04 DISTANCE: 8.851

*=INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FMPH	FNSTRC
SAMPLE DATE	HOUR	SAMPLE	SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	
YYMMDD	LMT	NUMBER	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	
			M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	PH
					AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	FIELD
											STREAM COND.
830125	1110	17806	0.30	0101	242.3	0.001<	499.0	0.025	4.00	0.245	3 8
830222		17814	0.30	0101	173.4		376.0			0.200	3 8
830329	1100	17822	0.30	0101	181.9	0.001<	396.0	0.003	7.00	0.195	6 8
830503	1050	17830	0.30	0101	172.5	0.001	361.0	0.003	4.00	0.795	8
830531	1030	17838	0.30	0101	192.9	0.001<	373.0	0.002	8.00	0.180	6 8
830628	1115	17846	0.30	0101	209.0	0.001	393.0	0.023	7.00	0.470	6 8
830726	1100	17854	0.30	0101	131.8	0.001<	257.0	0.001	5.00	0.120	6 8
830830	1100	17862	0.30	0101	115.1	0.001<	231.0	0.001	4.00	0.345	6 7
831003	1130	17870	0.30	0101	164.2	0.001<	326.0	0.002	5.50	0.410	6 8
831025	1123	17878	0.30	0101	213.3	0.001<	480.0	0.010		0.630	8
831129	1110	17886	0.30	0101	154.5	0.001<	426.0	0.003	8.00	0.375	6 8
MAXIMUM		0.30			242.3	0.001	499.0	0.025	8.00	0.795	6.00
ARITH MEAN		0.30			177.4	0.001	374.4	0.007	5.83	0.360	6.00
GEOM MEAN					173.8		365.5	0.004	5.61	0.310	
MINIMUM		0.30			115.1	0.001	231.0	0.001	4.00	0.120	6.00
STD DEV (GEOM *)					36.7		81.9	0.009	1.70	0.208	
# SAMP IN STATISTICS		11			11	2	11	10	9	11	1
% SAMP (EXCLUDED)						80					

*=INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT	
SAMPLE DATE	HOUR	WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC	
YYMMDD	LMT	TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.	
		DEG.C	MG/L	MG/L		UG/L	MG/L		MG/L	
			AS NI	AS PB	PH	PHENOL	AS P	TURB'ITY	AS ZN	
								FTU		
830125	1110	17806	2.0	0.001<	0.003	7.21	0.2<W	0.036	2.30	0.008
830222		17814	1.0			8.00		0.036	2.30	
830329	1100	17822	2.0	0.002<	0.003<	8.25		0.031	3.10	0.004
830503	1050	17830	15.0	0.002<	0.003<	7.68	0.2<W	0.107	13.00	0.006
830531	1030	17838	17.0	0.002<	0.003<	7.53	0.2<W		1.44	0.001<
830628	1115	17846	21.0	0.002<	0.003<		1.4	0.140	1.30	0.002
830726	1100	17854	25.0	0.002<	0.003<	7.44	0.2<W	0.100	1.00	0.001<
830830	1100	17862	24.0	0.001<	0.003	7.78	0.4<T	0.102	1.89	0.002
831003	1130	17870	18.5	0.002<	0.003<	7.82	0.2<W	0.099	1.60	0.004
831025	1123	17878	8.0	0.002<	0.003<	7.58	-0.2<T	0.305	13.30	0.005
831129	1110	17886	3.0	0.002<	0.003<	7.60	0.2<T	0.062	3.20	0.004

(CONTD)

1983 WATER QUALITY DATA REGION 4

51

B.O.W./ SITE: SANGUIN CREEK
 SAMPLE POINT: AT COUNTY ROAD 28
 STATION TYPE: RIVER

STATION ID: 17-0016-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: SANGUIN CREEK

STORET CODE: 02
 004
 1400

LAT: 44 06 11.21 LONG: 077 23 44.63 U T M: 18 0308250.0 4885900.0 4 REGION: 04 DISTANCE: 8.851

*INTERIM TEST-NAME:		FNTMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HR	WATER TEMP	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L
YYMMDD	LMT	DEG.C	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
		MAXIMUM	25.0	0.003	8.25	1.4	0.305	13.30	0.008
		ARITH MEAN	12.4	0.003	7.69	0.3<A	0.102	4.04	0.004
		GEOM MEAN	7.7		7.68		0.081	2.68	
		MINIMUM	1.0	0.003	7.21	-0.2	0.031	1.00	0.002
		STD DEV (GEOM *)	9.4		0.29		0.080	4.56	
		# SAMP IN STATISTICS	11	2	10	9	10	11	8
		% SAMP (EXCLUDED)		80					20

1983 WATER QUALITY DATA REGION 4

52

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: HIGHWAY 401 BRIDGE NEAR TRENTON.
 STATION TYPE: RIVER FLOW GAUGE FED 02HK004

STATION ID: 17-0021-045-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 07 39.40 LONG: 077 35 35.09 U T M: 18 0292540.0 4889100.0 4 REGION: 04 DISTANCE: 3.862

*INTERIM TEST-NAME:		FWSADP	FWDPTS	FGPROJ	ALK	ASUT	COND25	CUUT	DO	FEUT	FWFLOW
SAMPLE		SAMPLE	WATER	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM
DATE	HOUR	DEPTH	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW
YYMMDD	LMT	NUMBER	DEPTH	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3
			M		AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S
830531	1030	16301	0.30	0101	93.1	0.001<	212.0	0.002	11.00	0.100	337.000
830705	1030	16306	0.30	0101	101.2		224.0		6.00	0.085	47.800
830803	0945	16311	0.30	0101	101.9	0.001<	226.0	0.003	8.00	0.075	35.700
830831	1100	16316	0.30	0101	90.2	0.001<	213.0	0.003	7.00	0.105	42.300
830928	1030	16321	0.30	0101	96.2	0.001<	221.0	0.008	9.00	0.125	26.300
831101	1000	16326	0.30	0101	102.8	0.001<	241.0	0.015	10.00	0.145	50.600
		MAXIMUM	0.30		102.8		241.0	0.015	11.00	0.145	337.000
		ARITH MEAN	0.30		97.6		222.8	0.006	8.50	0.106	89.950
		GEOM MEAN			97.4		222.6	0.005	8.32	0.103	56.454
		MINIMUM	0.30		90.2		212.0	0.002	6.00	0.075	26.300
		STD DEV (GEOM *)			5.2		10.6	0.005	1.87	0.026	121.345
		# SAMP IN STATISTICS	6	1	6		6	5	6	6	6
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE		STREAM	WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE	HOUR	COND.	TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.	TURB'ITY	UNF.TOT.
YYMMDD	LMT	COND.	DEG.C	MG/L	MG/L	PH	UG/L	MG/L	FTU	MG/L
				AS NI	AS PB		PHENOL	AS P		AS ZN
830531	1030	16301	14.0	0.002<	0.003<	8.14	0.2<T	0.033	4.10	0.001
830705	1030	16306	5 9	24.0		8.01	0.8	0.030	1.20	
830803	0945	16311	5 9	24.0	0.002<	8.04	0.2<W	0.025	2.30	0.002
830831	1100	16316	5 9	23.0	0.002<	8.09	0.2<W	0.030	4.10	0.001
830928	1030	16321	5 9	16.0	0.003	8.10	0.2<T	0.038	2.70	0.003
831101	1000	16326	5 9	6.0	0.008	7.82	0.2<W	0.033	2.80	0.005
		MAXIMUM	24.0	0.008		8.14	0.8	0.038	4.10	0.005
		ARITH MEAN	17.8	0.005		8.03	0.3<A	0.031	2.87	0.002
		GEOM MEAN	16.2			8.03	0.3<A	0.031	2.66	0.002
		MINIMUM	6.0	0.003		7.82	0.2	0.025	1.20	0.001
		STD DEV (GEOM *)	7.2			0.11	0.2<A	0.004	1.11	0.002
		# SAMP IN STATISTICS	6	2		6	6	6	6	5
		% SAMP (EXCLUDED)		60						

III

1983 WATER QUALITY DATA REGION 4

53

B.O.W./ SITE: COLD CREEK.
 SAMPLE POINT: HIGHWAY 33 BRIDGE IN FRANKFORD
 STATION TYPE: RIVER FLOW GAUGE MOE 02HK108

STATION ID: 17-0021-046-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 12 03.25 LONG: 077 35 48.46 U T M: 18 0292500.0 4897250.0 4 REGION: 04 DISTANCE: 12.070

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE DATE	HOUR	SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
YYMMDD	LMT	NUMBER	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	TEMP
			CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	DEG.C
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		
830531	1100	16302	0101	202.1	0.001<	397.0	0.002	11.00	0.255		16.0
830705	1105	16307	0101	171.2	0.001	345.0	0.005	10.00	0.155	5	25.0
830803	1015	16312	0101	184.4	0.001<	374.0	0.004	9.00	0.340	5 9	23.5
830831	1120	16317	0101	133.9	0.001<	317.0	0.011	10.00	0.540	5 9	21.0
830928	1100	16322	0101	193.0	0.001<	399.0	0.009	11.00	0.130	5 9	15.0
831101	1030	16327	0101	202.3	0.001<	431.0	0.012	11.00	0.240	5 9	4.0
MAXIMUM		0.30		202.3	0.001	431.0	0.012	11.00	0.540		25.0
ARITH MEAN		0.30		181.1	0.001	377.2	0.007	10.33	0.277		17.4
GEOM MEAN				179.4		375.3	0.006	10.31	0.247		15.1
MINIMUM		0.30		133.9	0.001	317.0	0.002	9.00	0.130		4.0
STD DEV (GEOM *)				26.0		41.1	0.004	0.82	0.149		7.7
# SAMP IN STATISTICS		6		6	1	6	6	6	6		6
% SAMP (EXCLUDED)					83						

*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	HOUR	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
YYMMDD	LMT	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.	TURB'ITY	UNF.TOT.
		MG/L	MG/L		UG/L	MG/L	FTU	MG/L
		AS NI	AS PB	PH	PHENOL	AS P		AS ZN
830531	1100	0.002<	0.003<	8.40	0.2<T	0.048	6.30	0.001<
830705	1105	0.002<	0.003<	8.42	0.8	0.028	5.00	0.001<
830803	1015	0.002<	0.003<	8.33	0.2<T	0.044	6.50	0.002
830831	1120	0.002<	0.003<	8.22	0.2<M	0.060	12.00	0.003
830928	1100	0.002<	0.003<	8.56	-0.2<T	0.020	2.10	0.002
831101	1030	0.002<	0.003	8.23	0.2<M	0.032	5.30	0.006
MAXIMUM			0.003	8.56	0.8	0.060	12.00	0.006
ARITH MEAN			0.003	8.36	0.2<A	0.039	6.20	0.003
GEOM MEAN				8.36		0.036	5.49	
MINIMUM			0.003	8.22	-0.2	0.020	2.10	0.002
STD DEV (GEOM *)				0.13		0.015	3.25	
# SAMP IN STATISTICS			1	6	6	6	6	4
% SAMP (EXCLUDED)			83					33

1983 WATER QUALITY DATA REGION 4

54

B.O.W./ SITE: RANDON CREEK
 SAMPLE POINT: AT HWY.NO.33 SOUTH OF STIRLING
 STATION TYPE: RIVER FLOW GAUGE MOE 02HK105

STATION ID: 17-0021-047-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 17 11.42 LONG: 077 33 12.85 U T M: 18 0296250.0 4906650.0 4 REGION: 04 DISTANCE: 24.783

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE DATE	YEAR	TIME	DEPTH	PROJECT	ALK	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	WATER
YYMMDD	MM	DD	M	SUB-PROJ	TOTAL	25C	UNF.TOT.	OXYGEN	UNF.TOT.	COND.	TEMP
				CODE	MG/L	UMHO/CM	MG/L	MG/L	MG/L		DEG.C
					AS CACO3	AT 25 C	AS CU	AS O	AS FE		
830531	1125	16303	0.30	0101	212.5	0.001<	411.0	0.011	0.190	3	15.0
830705	1130	16308	0.30	0101	206.8	0.001<	417.0	0.009	0.105	5 7	24.0
830803	1105	16313	0.30	0101	208.3	0.001<	435.0	0.009	0.080	5 7	24.0
830831	1200	16318	0.30	0101	192.4	0.001<	416.0	0.046	0.075	5 7 9	22.0
830928	1130	16323	0.30	0101	206.1	0.001<	441.0	0.005	0.080	7 5 9	15.5
831101	1100	16328	0.30	0101	222.6	0.001<	489.0	0.008	0.145	7 5 9	5.0
MAXIMUM			0.30		222.6		489.0	0.046	0.190		24.0
ARITH MEAN			0.30		208.1		434.8	0.016	0.112		17.6
GEOM MEAN					207.9		434.1	0.011	0.106		15.7
MINIMUM			0.30		192.4		411.0	0.005	0.075		5.0
STD DEV (GEOM *)					9.8		29.0	0.017	0.046		7.4
# SAMP IN STATISTICS			6		6		6	5	6		6
% SAMP (EXCLUDED)											

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	YEAR	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
YYMMDD	MM	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.	TURB'ITY	UNF.TOT.
		MG/L	MG/L		UG/L	MG/L	FTU	MG/L
		AS NI	AS PB	PH	PHENOL	AS P		AS ZN
830531	1125	16303	0.003	0.003<	8.29	0.2<T	0.026	4.40
830705	1130	16308			8.35	0.8	0.033	2.00
830803	1105	16313	0.002<	0.003<	8.18	-0.2<T	0.017	1.50
830831	1200	16318	0.002<	0.003<	8.27	0.2<W	0.018	1.15
830928	1130	16323	0.002<	0.003<	8.24	-0.2<T	0.028	1.40
831101	1100	16328	0.002<	0.003<	8.15	0.2<W	0.028	2.00
MAXIMUM		0.003			8.35	0.8	0.033	4.40
ARITH MEAN		0.003			8.25	0.2<A	0.025	2.07
GEOM MEAN					8.25		0.024	1.87
MINIMUM		0.003			8.15	-0.2	0.017	1.15
STD DEV (GEOM *)					0.07		0.006	1.19
# SAMP IN STATISTICS		1			6	6	6	5
% SAMP (EXCLUDED)		80						

III

1983 WATER QUALITY DATA REGION 4

55

B.O.W./ SITE: BOW LAKE OUTLET
 SAMPLE POINT: AT HWY.28 SOUTH-WEST OF BANCROFT 71 3
 STATION TYPE: RIVER FLOW GAUGE MOE 02HK102

STATION ID: 17-0021-062-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 45 00 13.68 LONG: 077 56 09.90 U T M: 18 0268600.0 4987350.0 4 REGION: 04 DISTANCE: 185.391

*INTERIM TEST-NAME:		FWSADP	FWSTRC	GACF	GACP	GBCF	GBCP	RA226F	UU238
SAMPLE				GROSS	GROSS	GROSS	GROSS		
DATE	HOUR	SAMPLE	SAMPLE	ALPHA CT	ALPHA CT	BETA CT	BETA CT	RADIUM	URANIUM
YYMMDD	LMT	NUMBER	DEPTH	STREAM	UNDISSOL	FILTERED	UNDISSOL	226 FIL.	238
			M	COND.	MBQ/L	MBQ/L	MBQ/L	MBQ/L	UG/L
830222	1230	15469	0.30	8	1100	40<	320	73	15
830315	1125	15486	0.30	8	1100	45	220	150	16
830425	1230	15504	0.30	8	920	80	180	90	12
830531	1110	15521	0.30	8	1500	40<	220	90	21
830616	1220	15538	0.30	8	1500	40<	370	90	22
830722	1215	15556	0.30		1600	40	450	110	25
830901	1200	15575	0.30	8	1600	60	580	140	22
831025	1515	15604	0.30	8	1700	40<	340	70	26
831123	1150	15623	0.30	8	2100	40	480	150	30
MAXIMUM		0.30			2100	80	580	150	30
ARITH MEAN		0.30			1458	53	351	107	21
GEOM MEAN					1416		328	103	20
MINIMUM		0.30			920	40	180	70	12
STD DEV (GEOM *)					364		134	32	6
# SAMP IN STATISTICS		9			9	5	9	9	9
% SAMP (EXCLUDED)						44		11	

1983 WATER QUALITY DATA REGION 4

56

B.O.W./ SITE: CREEK TRIBUTARY TO BOW LAKE
 SAMPLE POINT: DNSTR.OF MADAWASKA MINE TAILINGS 70 1
 STATION TYPE: RIVER

STATION ID: 17-0021-063-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 45 01 27.68 LONG: 077 55 27.99 U T M: 18 0269600.0 4989600.0 4 REGION: 04 DISTANCE: 188.288

*INTERIM TEST-NAME:		FWSADP	FWSTRC	GACF	GACP	GBCF	GBCP	RA226F	UU238
				GROSS	GROSS	GROSS	GROSS		
SAMPLE		SAMPLE		ALPHA CT	ALPHA CT	BETA CT	BETA CT	RADIUM	URANIUM
DATE	HR	DEPTH	STREAM	ALPHA CT	ALPHA CT	BETA CT	BETA CT	226 FIL.	238
YYMMDD	LMT	NUMBER	COND.	MBQ/L	MBQ/L	MBQ/L	MBQ/L	MBQ/L	UG/L
830222	1105	15467	0.30	8	700	40<	180	40<	10
830315	1115	15485	0.30	8	800	47	190	40<	12
830425	1115	15502	0.30	8	740	40<	150	60	11
830531	1100	15520	0.30	8	1100	40<	480	40<	17
830616	1155	15537	0.30	8	2400	100	520	230	38
830722	1150	15555	0.30		3600	70	520	280	58
830901	1130	15573	0.30	8	5200	90	670	460	83
831025	1545	15606	0.30	8	5400	70	640	280	82
831123	1140	15622	0.30	8	3500	70	500	220	63
MAXIMUM		0.30			5400	100	670	460	83
ARITH MEAN		0.30			2604	74	428	255	42
GEOM MEAN					1939		374		30
MINIMUM		0.30			700	47	150	60	10
STD DEV (GEOM *)					1904		201		31
# SAMP IN STATISTICS		9			9	6	9	6	9
% SAMP (EXCLUDED)						33		33	44

III

1983 WATER QUALITY DATA REGION 4

57

B.O.W./ SITE: CREEK OUTLET OF BENTLEY LAKE
 SAMPLE POINT: UPSTR.OF MADAMASKA MINE TAILINGS 70 2
 STATION TYPE: RIVER

STATION ID: 17-0021-064-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 45 01 20.46 LONG: 077 54 53.36 U T M: 18 0270350.0 4989350.0 4 REGION: 04 DISTANCE: 189.576

*INTERIM TEST-NAME:		FWSADP	FWSTRC	GACF GROSS	GACP GROSS	GBCF GROSS	GBCP GROSS	RA226F	UU238	
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	SAMPLE DEPTH M	STREAM COND.	ALPHA CT FILTERED MBQ/L	ALPHA CT UNDISSOL MBQ/L	BETA CT FILTERED MBQ/L	BETA CT UNDISSOL MBQ/L	RADIUM 226 FIL. MBQ/L	URANIUM 238 UG/L
830222	1055	15466	0.30	4	300	40<	110	40<	40<	4
830315	1105	15484	0.30	4	85	40<	63	40<	40<	3<
830425	1105	15501	0.30	4	120	40<	60	40<	40<	3<
830531	1055	15519	0.30	8	610	40<	190	40<	40<	9
830616	1145	15536	0.30	8	410	40<	140	40<	40<	6
830722	1140	15554	0.30		570	40<	170	40<	40<	9
830901	1115	15572	0.30	8	660	40<	200	70	40<	10
831025	1600	15607	0.30	8	1200	40<	230	100	40<	18
831123	1130	15621	0.30	8	2000	40	278	50	40<	30
MAXIMUM		0.30			2000	40	270	100		30
ARITH MEAN		0.30			662	40	159	73		12
GEOM MEAN					445		142			
MINIMUM		0.30			85	40	60	50		4
STD DEV (GEOM #)					603		72			
# SAMP IN STATISTICS		9			9	1	9	3		7
% SAMP (EXCLUDED)						88		66		22

1983 WATER QUALITY DATA REGION 4

58

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM		TEST-NAME:	FWSADP	FWDPTS	FGPROJ	ALKT	ALKTI ALK INFLECTN	ASUT	CDUT	COND25	CRUT	CUUT
SAMPLE DATE	HR	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L	ALK POINT MG/L	ARSENIC UNF.TOT. MG/L	CADMIUM UNF.TOT. MG/L	CONDUCT. 25C UMHO/CM	CHROMIUM UNF.TOT. MG/L	COPPER UNF.TOT. MG/L
YYMMDD	LMT					AS CAC03	AS CAC03	AS AS	AS CD	AT 25 C	AS CR	AS CU
830301	0945	43200	0.30		0103	107.0			0.0002<			0.005
830302	1005	43201	0.30		0103	107.4			0.0002<			0.004
830303	1000	43202	0.30		0103	107.2			0.0003			0.004
830307	1015	43203	0.30		0103	111.8			0.0002			0.004
830308	0930	43204	0.30		0103	114.8			0.0002<			0.006
830309	1005	43205	0.30		0103	114.0			0.0008			0.006
830310	1015	43206	0.30		0103	116.3			0.0006			0.010
830311	1040	43207	0.30		0103	116.2			0.0006			0.004
830314	1015	43208	0.30		0103	117.0			0.0004			0.011
830315	1020	43209	0.30		0103	113.3			0.0002<			0.003
830316	0910	43210	0.30		0103	111.7			0.0002<			0.004
830317	1015	43211	0.30		0103	113.6			0.0002<			0.003
830318	1000	43212	0.30		0103	115.2			0.0002<			0.005
830322	1030	43213	0.30		0103	117.6			0.0003			0.005
830323	1045	43214	0.30		0103	116.0			0.0005			0.005
830324	1000	43215	0.30		0103	110.8			0.0006			0.008
830325	1015	43216	0.30		0103	111.2			0.0002<			0.004
830328	1020	43217	0.30		0103	109.3			0.0010			0.011
830329	1030	43218	0.30		0103	108.7			0.0002<			0.003
830330	1000	43219	0.30		0103	109.1			0.0002<	249.0		0.004
830331	1015	43220	0.30		0103	106.0			0.0002<	246.0		0.006
830413	0930	43221	0.30		0103	107.5			0.0002<	246.0		0.004
830414	1100	43222	0.30		0103	103.7			0.0002	239.0		0.003
830418	0930	43223	0.30		0103				0.0005	234.0		0.009
830419	1045	43224	0.30		0103				0.0002	235.0		0.013
830420	1015	43225	0.30		0103				0.0003	231.0		0.011
830421	1040	43226	0.30		0103	100.3			0.0003	230.0		0.008
830422	0945	43227	0.30		0103	99.2			0.0003	229.0		0.012
830425	1045	43228	0.30		0103	100.4				228.0		0.010
830426	1115	43229	0.30		0103	99.4			0.0002	226.0		0.007
830427	1010	43230	0.30		0103	102.4			0.0005	236.0		0.008
830503	1100	43231	0.30		0103	106.1			0.0002<	243.0		0.003
830505	1015	43232	0.30		0103	108.6			0.0002<	243.0		0.005
830509	1050	43233	0.30		0103	96.2			0.0002<	224.0		0.010
830510	1035	43234	0.30		0103	94.5			0.0002<	225.0		0.004
830511	1100	43235	0.30		0103	94.7			0.0003	228.0		0.012
830512	1005	43236	0.30		0103	97.3			0.0004	228.0		0.006
830513	1110	43237	0.30		0103	98.6			0.0002	222.0		0.010
830516	1030	43238	0.30		0103	94.5			0.0003	205.0		0.007
830517	0930	43239	0.30		0103	92.8			0.0002<	211.0		0.008

(CONTD)

1983 WATER QUALITY DATA REGION 4

59

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM		TEST-NAME:	FWSADP	FWDPTS	FGPROJ	ALKT	ALKTI	ASUT	CDUT	COND25	CRUT	CUUT
SAMPLE	DATE	HR	SAMPLE	WATER	PROJECT	ALK	INFLECTN	ARSENIC	CADMIUM	CONDUCT.	CHROMIUM	COPPER
YMMDD	LMT	NUMBER	DEPTH	DEPTH	SUB-PROJ	TOTAL	POINT	UNF.TOT.	UNF.TOT.	25C	UNF.TOT.	UNF.TOT.
			M	M	CODE	MG/L	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L
						AS CAC03	AS CAC03	AS AS	AS CD	AT 25 C	AS CR	AS CU
830518	0810	43240	0.30		0103	92.9			0.0002<	213.0		0.013
830519	1010	43241	0.30		0103	91.7			0.0002<	213.0		0.011
830520	1030	43242	0.30		0103	91.5			0.0002<	205.0		0.011
830524	1030	43243	0.30		0103	95.2			0.0002<	218.0		0.004
830525		43244	0.30		0103	94.3			0.0002<	223.0		0.004
830526	1010	43245	0.30		0103	94.6			0.0003	206.0		0.009
830527	1045	43246	0.30		0103	95.0			0.0002<	217.0		0.008
830530	0935	43247	0.30		0103	91.9			0.0002<	210.0		0.003
830531	0900	43248	0.30		0103	92.1				209.0		
	1010	16300	0.30		0101	94.7		0.001<	0.0002<		0.002<	0.002
830601	0930	43249	0.30		0103	94.5			0.0002	211.0		0.001
830602	1000	43250	0.30		0103	96.7			0.0002<	218.0		0.003
830603	1030	43251	0.30		0103	97.3			0.0002<	220.0		0.002
830606	0940	43252	0.30		0103	94.1			0.0003	215.0		0.002
830607	1030	43253	0.30		0103				0.0002<			0.001
830608	0930	43254	0.30		0103	93.9			0.0002	211.0		0.002
830609	1010	43255	0.30		0103	93.3			0.0002<	201.0		0.002
830610	1030	43256	0.30		0103				0.0002<			0.004
830613	1000	43257	0.30		0103	95.4			0.0003	211.0		0.003
830620	1015	43258	0.30		0103	96.0			0.0002	218.0		0.002
830627	1015	43259	0.30		0103	98.3			0.0002	222.0		0.003
830630	1020	43260	0.30		0103	105.4			0.0002<	235.0		0.003
830704	1030	43261	0.30		0103	103.1			0.0002<	230.0		0.013
830705	1000	16305	0.30	0.30	0101	102.1		0.001<	0.0002<		0.001<	0.012
830711	1035	43262	0.30		0103	102.7			0.0002<	231.0		0.007
830718	1115	43263	0.30		0103	106.6			0.0002<	238.0		0.002
830725	1015	43264	0.30		0103	107.8			0.0003	240.0		0.003
830728	0935	43265	0.30		0103	103.5			0.0002<	229.0		0.001
830802	1030	43266	0.30		0103	101.6				225.0		
830803	0930	16310	0.30	0.50	0101	102.5		0.001<	0.0002<		0.001	0.009
830808	0910	43267	0.30		0103	98.4			0.0004	225.0		0.003
830815	1010	43268	0.30		0103	99.9			0.0003	227.0		0.002
830823	1130	43269	0.30		0103	98.8			0.0003	219.0		0.004
830829	0915	43270	0.30		0103	96.7			0.0002<	224.0		0.002
830831	1020	16315	0.30	0.30	0101	101.1		0.001<	0.0002<		0.001	0.019
830906	1045	43271	0.30		0103	89.9			0.0003	216.0		0.009
830912	0930	43272	0.30		0103	94.6			0.0005	208.0		0.010
830919	1035	43273	0.30		0103				0.0002<			0.003
830926	0930	43274	0.30		0103	96.5			0.0002<	222.0		0.001
830928	0950	16320	0.30		0101	96.6		0.001<	0.0002<		0.001<	0.019

(CONT'D)

1983 WATER QUALITY DATA REGION 4

60

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM TEST-NAME:		FMSADP	FNDPTS	FGPROJ	ALKT	ALTKI ALK INFLECTN	ASUT	CDUT	COND25	CRUT	CUUT
SAMPLE DATE YYMMDD	HR LMT	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	ARSENIC UNF. TOT. MG/L AS AS	CADMIUM UNF. TOT. MG/L AS CD	CONDUCT. 25C UMHO/CM AT 25 C	CHROMIUM UNF. TOT. MG/L AS CR	COPPER UNF. TOT. MG/L AS CU
830929	1010	43275	0.30		0103						
831003		43276	0.30		0103	97.4		0.0002<	219.0		0.002
831011	1040	43277	0.30		0103	98.0		0.0003	230.0		0.005
831017	0900	43278	0.30		0103	98.2		0.0003	230.0		0.005
831024	1045	43279	0.30		0103	106.64	103.53		469.0		
831027	1035	43280	0.30		0103	109.59	106.27		244.0		0.002
831101	0930	16325	0.30		0101	107.6		0.0002<		0.001<	0.004
	1000	43281	0.30		0103	105.0	0.001<	0.0002<	230.0		0.006
831107	1030	43282	0.30		0103	108.4		0.0002<	248.0		0.001
831114	0935	43283	0.30		0103	107.9		0.0002<	253.0		0.001
831121	1130	43284	0.30		0103	108.9		0.0002<	255.0		0.002
831128	1040	43285	0.30		0103	108.7		0.0002<	250.0		0.005
831205	1045	43286	0.30		0103	113.5		0.0002	268.0		0.006
831213	1100	43287	0.30		0103	118.4		0.0009	285.0		0.006
		MAXIMUM	0.30	0.50		118.4	106.27	0.0010	469.0	0.001	0.019
		ARITH MEAN	0.30	0.37		102.8	104.90	0.0004	231.5	0.001	0.006
		GEOM MEAN				102.5	104.89		229.8		0.005
		MINIMUM	0.30	0.30		89.9	103.53	0.0002	201.0	0.001	0.001
		STD DEV (GEOM %)				7.7	1.94		33.7		0.004
		# SAMP IN STATISTICS	92	3		87	2	39	65	2	90
		% SAMP (EXCLUDED)						56		66	
*INTERIM TEST-NAME:		DO	FWFLOW	FWSTRC	FWTEMP	HGUT	NNOTFR	NN02FR	NN03FR	NNTKUR K'DAHL N TOTAL	PBUT LEAD
SAMPLE DATE YYMMDD	HR LMT	SAMPLE NUMBER	DISOLVED OXYGEN MG/L AS O	STREAM FLOW M3 /S	STREAM COND.	WATER TEMP DEG.C	MERCURY UNF. TOT. UG/L AS HG	NO2+NO3N FIL. REAC MG/L AS N	NO2-N FIL. REAC MG/L AS N	NO3-N FIL. REAC MG/L AS N	UNF. REAC MG/L AS N
830301	0945	43200		116.000			0.02<	0.395	0.0330	0.362	0.003
830302	1005	43201		103.000			0.04<	0.400	0.0230	0.377	0.003<
830303	1000	43202		86.000			0.04<	0.315	0.0090	0.306	0.003<
830307	1015	43203		91.900			0.01<	0.305	0.0120	0.293	0.003<
830308	0930	43204		93.600			0.02<	0.315	0.0280	0.287	0.003<
830309	1005	43205		99.500			0.02<	0.340	0.0270	0.313	0.004
830310	1015	43206		108.000			0.01	0.365	0.0215	0.343	0.006
830311	1040	43207		128.000			0.02<	0.375	0.0300	0.345	0.005
830314	1015	43208		124.000			0.03<	0.350	0.0335	0.316	0.003
830315	1020	43209		128.000			0.02	0.350	0.0010<	0.349	0.004

(CONT'D)

1983 WATER QUALITY DATA REGION 4

61

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*=-INTERIM TEST-NAME:		DO	FWFLOW	FWSTRC	FWTEMP	HGUT	NNOTFR	NNO2FR	NNO3FR	NNTKUR	PBUT
		DISOLVED	STREAM			MERCURY	NO2+NO3N	NO2-N	NO3-N	NNTKUR	LEAD
SAMPLE		OXYGEN	FLOW		WATER	UNF.TOT.	FIL.REAC	FIL.REAC	FIL.REAC	UNF.REAC	UNF.TOT.
DATE	HR	MG/L	M3	STREAM	TEMP	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L
YYMMDD	LMT	AS O	/S	COND.	DEG.C	AS HG	AS N	AS N	AS N	AS N	AS PB
830316	0910	43210	110.000			0.01	0.335	0.0015<T	0.330		0.003<
830317	1015	43211	105.000			0.02	0.330	0.0075	0.320		0.004
830318	1000	43212	104.000			0.02<	0.340	0.0085	0.330		0.003<
830322	1030	43213	211.000			0.01<	0.405	0.0015<T	0.400		0.013
830323	1045	43214	222.000			0.01<	0.420	0.0020	0.418		0.004
830324	1000	43215	183.000			0.02<	0.325	0.0010<T	0.320		0.005
830325	1015	43216	140.000			0.02<	0.320	0.0010<T	0.319		0.003
830328	1020	43217	160.000			0.01<	0.265	0.0310	0.230		0.010
830329	1030	43218	228.000			0.01<	0.280	0.0010<T	0.280		0.003
830330	1000	43219	277.000			0.02<	0.225	0.0020	0.223		0.004
830331	1015	43220	292.000			0.03<	0.275	0.0070	0.268		0.005
830413	0930	43221	363.000			0.01	0.280	0.0015<T	0.279		0.003<
830414	1100	43222	371.000			0.01	0.240	0.0010<T	0.239		0.003<
830418	0930	43223	374.000			0.02	0.200	0.0070	0.193		0.004
830419	1045	43224	351.000			0.01	0.225	0.0070	0.218		0.005
830420	1015	43225	340.000			0.01	0.230	0.0015<T	0.229		0.003<
830421	1040	43226	336.000			0.01	0.190	0.0020	0.188		0.004
830422	0945	43227	300.000			0.01	0.185	0.0120	0.173		0.003
830425	1045	43228	223.000			0.01	0.155	0.0190	0.136		
830426	1115	43229	144.000			0.01	0.170	0.0180	0.152		0.003<
830427	1010	43230	105.000			0.01	0.180	0.0020	0.178		0.003
830503	1100	43231	281.000				0.175	0.0010<T	0.174		0.003<
830505	1015	43232	362.000			0.02<	0.210	0.0015<T	0.209		0.003<
830509	1050	43233	427.000			0.01	0.155	0.0025	0.153		0.003<
830510	1035	43234	428.000			0.01					0.003<
830511	1100	43235	431.000			0.01	0.155	0.0020	0.153		0.006
830512	1005	43236	431.000			0.01					0.003<
830513	1110	43237	431.000			0.02<	0.130	0.0020	0.128		0.003
830516	1030	43238	435.000			0.02	0.140	0.0015<T	0.139		0.003<
830517	0930	43239	435.000			0.02<	0.180	0.0075	0.173		0.003<
830518	0810	43240	434.000				0.135	0.0025	0.133		0.003<
830519	1010	43241	434.000			0.01	0.115	0.0015<T	0.114		0.003<
830520	1030	43242	437.000			0.01	0.050	0.0060	0.044		0.003<
830524	1030	43243	427.000			0.01	0.045	0.0040	0.041		0.003<
830525		43244	422.000			0.01	0.110	0.0015<T	0.109		0.003<
830526	1010	43245	411.000			0.01	0.100	0.0050	0.095		0.003<
830527	1045	43246	392.000			0.01	0.025	0.0020	0.023		0.003<
830530	0935	43247	367.000			0.02<	0.045	0.0040	0.041		0.003<
830531	0900	43248	337.000			0.02<	0.030	0.0040	0.026		
	1010	16300	10.00			0.03	0.015	0.0045		0.540	0.003<

(CONTD)

1983 WATER QUALITY DATA REGION 4

62

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM		TEST-NAME:	DO	FWFLOW	FWSTRC	FWTEMP	HGUT	NNOTFR	NNO2FR	NNO3FR	NNTKUR	PBUT
SAMPLE	DATE	DATE	DISOLVED	STREAM		WATER	MERCURY	NO2+NO3N	NO2-N	NO3-N	K'DAHL N	LEAD
DATE	DATE	DATE	OXYGEN	FLOW	COND.	TEMP	UNF.TOT.	FIL.REAC	FIL.REAC	FIL.REAC	UNF.REAC	UNF.TOT.
YYMMDD	YYMMDD	YYMMDD	MG/L	M3		DEG.C	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L
LMT	LMT	LMT	AS O	/S			AS HG	AS N	AS N	AS N	AS N	AS PB
830601	0930	43249		234.000			0.02<	0.040	0.0050	0.035		0.003<
830602	1000	43250		163.000			0.02<	0.060	0.0120	0.048		0.004
830603	1030	43251		162.000			0.01<	0.055	0.0100	0.045		0.003<
830606	0940	43252		187.000			0.02<	0.085	0.0050	0.080		0.003<
830607	1030	43253		191.000			0.02<					0.003<
830608	0930	43254		166.000			0.02<	0.090	0.0130	0.077		0.003<
830609	1010	43255		121.000			0.02<	0.050	0.0150	0.035		0.003<
830610	1030	43256		110.000			0.03<					0.003<
830613	1000	43257		83.800			0.04<	0.030	0.0180	0.012		0.003<
830620	1015	43258		55.400			0.04	0.020	0.0030	0.017		0.003<
830627	1015	43259		23.400			0.03<	0.070	0.0080	0.062		0.003<
830630	1020	43260		39.800			0.01	0.085	0.0190	0.066		0.003<
830704	1030	43261		40.700			0.01<	0.005<T	0.0030			0.003
830705	1000	16305	7.00	47.800	5 9	24.0	0.03	0.025	0.0060	0.019	0.460	0.003<
830711	1035	43262		22.600			0.03<	0.010<T	0.0040	0.006<T		0.003<
830718	1115	43263		15.000			0.03<	0.005<T	0.0030			0.003<
830725	1015	43264		19.500			0.02<	0.005<T	0.0020	0.005<T		0.003
830728	0935	43265		15.300			0.03<	0.005<W	0.0020			0.003<
830802	1030	43266		38.900			0.01	0.100	0.0620	0.038		
830803	0930	16310	6.00	35.700	5 9	24.0	0.04	0.605	0.0040		0.680	0.004
830808	0910	43267		42.000			0.03	0.025	0.0100	0.015		0.003<
830815	1010	43268		25.900			0.01	0.025	0.0160	0.009<T		0.003<
830823	1130	43269		37.200			0.03	0.010<T	0.0050<T	0.008<T		0.003<
830829	0915	43270		23.300			0.01	0.010<T	0.0030	0.007<T		0.003<
830831	1020	16315	6.00	42.300	5 9	23.0		0.010<T	0.0035	0.007<T	0.750	0.003<
830906	1045	43271		36.500			0.02	0.005<T	0.0020	0.005<T		0.010
830912	0930	43272		22.400			0.01<	0.020	0.0015<T	0.019		0.005
830919	1035	43273		35.700								0.003<
830926	0930	43274		28.000			0.01	0.010<T	0.0030	0.007<T		0.003<
830928	0950	16320	9.00	26.300	5 9	16.0	0.03	0.320	0.0050	0.315	0.650	0.003<
830929	1010	43275		26.600			0.01U					
831003		43276		26.000			0.01	0.005<T	0.0020	0.005<T		0.003<
831011	1040	43277		43.800			0.01<	0.050	0.0035	0.047		0.004
831017	0900	43278		78.800			0.01	0.110	0.0080	0.102		0.003<
831024	1045	43279		50.200			0.01<	0.065	0.0070	0.058		
831027	1035	43280		51.300			0.01<	0.095	0.0090	0.086		0.003<
831101	0930	16325	9.00	50.600	5 9	5.5		0.115	0.0080	0.107	0.700	0.003<
	1000	43281		50.600			0.01	0.065	0.0080	0.073		0.003<
831107	1030	43282		53.500			0.01<	0.110	0.0080	0.102		0.003<
831114	0935	43283		69.800			0.01<	0.135	0.0065	0.129		0.003<

(CONT'D)

1983 WATER QUALITY DATA REGION 4

63

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM TEST-NAME:			DO	FWFLOW	FWSTRC	FWTEMP	HGUT	NNOTFR	NN02FR	NN03FR	NNTKUR	PBUT
			DISOLVED	STREAM			MERCURY	NO2+NO3N	NO2-N	NO3-N	K'DAHL N	LEAD
SAMPLE	DATE	TIME	OXYGEN	FLOW	COND.	WATER	UNF.TOT.	FIL.REAC	FIL.REAC	FIL.REAC	UNF.REAC	UNF.TOT.
YYMMDD	LMT	SAMPLE	MG/L	M3		TEMP	UG/L	MG/L	MG/L	MG/L	MG/L	MG/L
		NUMBER	AS O	/S		DEG.C	AS HG	AS N	AS N	AS N	AS N	AS PB
831121	1130	43284		119.000			0.01<	0.185	0.0060	0.179		0.003<
831128	1040	43285		159.000			0.01<	0.125	0.0050	0.120		0.012
831205	1045	43286		98.300			0.01<	0.140	0.0055	0.135		0.003<
831213	1100	43287		154.000			0.01<	0.360	0.0420	0.318		0.003<
MAXIMUM			10.00	437.000		24.0	0.04	0.605	0.0620	0.418	0.750	0.013
ARITH MEAN			7.83	178.713		17.7	0.01	0.162<A	0.0087<A	0.155<A	0.630	0.005
GEOM MEAN			7.67	117.525		15.9		0.092<A	0.0051<A	0.090<A	0.622	
MINIMUM			6.00	15.000		5.5	0.01	0.005	0.0010	0.005	0.460	0.003
STD DEV (GEOM *)			1.72	145.081		7.4		0.135<A	0.0105<A	0.122<A	0.109	
# SAMP IN STATISTICS			6	94		6	42	88	88	83	6	30
% SAMP (EXCLUDED)							52					66

*INTERIM TEST-NAME:			PH	PP04FR	PPUT	RSF	RSP	ZNUT
				P04	PHOSPHOR			ZINC
SAMPLE	DATE	TIME		FIL.REAC	UNF.TOT.	RESIDUE	RESIDUE	UNF.TOT.
YYMMDD	LMT	SAMPLE	PH	MG/L	MG/L	FILTERED	PARTIC.	MG/L
		NUMBER		AS P	AS P	MG/L	MG/L	AS ZN
830301	0945	43200	7.80	0.0025<T	0.030		2.650	
830302	1005	43201	7.82	0.0040	0.018		2.750	
830303	1000	43202	7.72	0.0010<T	0.015		3.920	
830307	1015	43203	8.02	0.0020<T	0.028		3.240	
830308	0930	43204	7.95				4.500	
830309	1005	43205	7.92				4.910	
830310	1015	43206	7.76	0.0030	0.020		3.310	
830311	1040	43207	7.84	0.0040	0.037		7.620	
830314	1015	43208	7.93	0.0020<T	0.016		3.440	
830315	1020	43209	7.91	0.0050	0.016		7.980	
830316	0910	43210	8.06	0.0040	0.014		2.600	
830317	1015	43211	8.13	0.0045	0.010		2.260	
830318	1000	43212	8.06	0.0030	0.015		9.530	
830322	1030	43213	7.83	0.0060	0.027		4.860	
830323	1045	43214	7.99	0.0070	0.026		4.420	
830324	1000	43215	7.97	0.0045	0.018		3.000	
830325	1015	43216	7.90	0.0030	0.027		2.560	
830328	1020	43217	7.80	0.0035	0.036		4.500	
830329	1030	43218	8.02	0.0050	0.022		55.700	
830330	1000	43219	7.78	0.0010<T	0.022		3.400	
830331	1015	43220	7.96	0.0040	0.019		2.950	

(CONT'D)

1983 WATER QUALITY DATA REGION 4

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B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM TEST-NAME:		PH	PP04FR P04 FIL. REAC MG/L AS P	PPUT PHOSPHOR UNF. TOT. MG/L AS P	RSF RESIDUE FILTERED MG/L	RSP RESIDUE PARTIC. MG/L	ZNUT ZINC UNF. TOT. MG/L AS ZN
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	PH				
830413	0930	43221	7.97	0.0080	0.032	8.700	
830414	1100	43222	8.00	0.0050	0.020	13.400	
830418	0930	43223	8.02	0.0035	0.290	7.640	
830419	1045	43224	8.20	0.2300	0.235	7.480	
830420	1015	43225	8.44	0.2630	0.285	4.770	
830421	1040	43226	7.97	0.1830	0.198	5.130	
830422	0945	43227	7.96	0.1850	0.200	4.750	
830425	1045	43228	8.10	0.1900	0.235	4.720	
830426	1115	43229	7.90	0.0025<T	0.026	5.070	
830427	1010	43230	7.75	0.0040	0.022	3.680	
830503	1100	43231	8.00	0.0040	0.021	11.200	
830505	1015	43232	8.30	0.0100	0.033	17.100	
830509	1050	43233	7.86	0.0115	0.040	25.700	
830510	1035	43234	7.91		0.046	96.900	
830511	1100	43235	7.85	0.0100	0.037	30.900	
830512	1005	43236	8.00		0.036	10.440	
830513	1110	43237	7.87	0.0050	0.036	14.700	
830516	1030	43238	7.88	0.0135	0.030	19.400	
830517	0930	43239	7.73	0.0085	0.032	17.200	
830518	0810	43240	7.70	0.0090	0.045	19.600	
830519	1010	43241	7.54	0.0055	0.052	11.100	
830520	1030	43242	7.97	0.0030	0.034	14.800	
830524	1030	43243	8.05	0.0010<T	0.039	54.700	
830525		43244	8.12	0.0090	0.034	16.600	
830526	1010	43245	8.07	0.0060	0.041	13.100	
830527	1045	43246	7.97	0.0010<T	0.034	13.100	
830530	0935	43247	8.04	0.0040	0.026	8.900	
830531	0900	43248	7.93	0.0030	0.029	10.300	
	1010	16300	8.00	0.0040	0.030	10.000	0.001
830601	0930	43249	7.97		0.026	10.300	
830602	1000	43250	7.98	0.0060	0.021	7.490	
830603	1030	43251	8.02	0.0050	0.026	5.120	
830606	0940	43252	8.08	0.0055	0.025	11.300	
830607	1030	43253				6.090	
830608	0930	43254	7.97	0.0070	0.034	5.060	
830609	1010	43255	8.00	0.0070	0.027	4.880	
830610	1030	43256				4.110	
830613	1000	43257	8.04	0.0045	0.032	4.530	
830620	1015	43258	7.67	0.0060	0.025	3.320	
830627	1015	43259	7.78	0.0100	0.031	5.440	
830630	1020	43260	6.86	0.0060	0.030	7.970	

(CONTD)

III

1983 WATER QUALITY DATA REGION 4

65

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: NEW HIGHWAY 2 BRIDGE TRENTON
 STATION TYPE: RIVER C FLOW GAUGE FED 02HK004

STATION ID: 17-0021-068-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 06 20.34 LONG: 077 34 43.95 U T M: 18 0293600.0 4886625.0 4 REGION: 04 DISTANCE: 0.805

*=INTERIM	TEST-NAME:	PH	PP04FR P04 FIL.REAC MG/L AS P	PPUT PHOSPHOR UNF.TOT. MG/L AS P	RSF RESIDUE FILTERED MG/L	RSP RESIDUE PARTIC. MG/L	ZNUT ZINC UNF.TOT. MG/L AS ZN
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	PH				
830704	1030	43261	7.64	0.0070	0.026		
830705	1000	16305	8.10	0.0060	0.025	146.0	0.003
830711	1035	43262	7.60	0.0080	0.057		
830718	1115	43263	7.50	0.0080	0.039		
830725	1015	43264	7.49	0.0030	0.035		
830728	0935	43265	7.55	0.0060	0.018		
830802	1030	43266	7.70	0.0080	0.026		
830803	0930	16310	7.81	0.0020<T	0.026		0.002
830808	0910	43267	7.79	0.0090	0.025		
830815	1010	43268	7.80	0.0045	0.025		
830823	1130	43269	7.76	0.0040	0.039		
830829	0915	43270	7.64	0.0010<T	0.030		
830831	1020	16315	7.75	0.0015<T	0.047	140.0	0.003
830906	1045	43271	8.05	0.0010<T	0.031		
830912	0930	43272	7.74	0.0010<T	0.051		
830926	0930	43274	7.93	0.0010<T	0.044		
830928	0950	16320	7.92	0.0010<T	0.046	398.0	0.006
830929	1010	43275					
831003		43276	7.56	0.0010<T	0.028		
831011	1040	43277	7.98	0.0020	0.036		
831017	0900	43278	8.04	0.0020<T	0.033		
831024	1045	43279	8.04	0.0130	0.064		
831027	1035	43280	7.98	0.0020<T	0.033		
831101	0930	16325	7.95	0.0030	0.030	157.0	0.001<
	1000	43281	7.75	0.0050	0.045		
831107	1030	43282	7.83	0.0080	0.028		
831114	0935	43283	7.95	0.0020	0.020		
831121	1130	43284	7.91	0.0045	0.022		
831128	1040	43285	7.97	0.0025<T	0.028		
831205	1045	43286	7.94	0.0050	0.037		
831213	1100	43287	7.92	0.0040	0.026		
MAXIMUM			8.44	0.2630	0.290	398.0	0.006
ARITH MEAN			7.89	0.0172<A	0.045	193.8	0.003
GEOM MEAN			7.89	0.0050<A	0.033	174.9	
MINIMUM			6.86	0.0010	0.010	128.0	0.001
STD DEV (GEOM *)			0.20	0.0499<A	0.055	114.6	
# SAMP IN STATISTICS			90	83	88	5	5
% SAMP (EXCLUDED)							16

1983 WATER QUALITY DATA REGION 4

66

B.O.W./ SITE: CROWE RIVER
 SAMPLE POINT: AT HMY.NO.28 PAUDASH LAKE OUTLET 76 1
 STATION TYPE: RIVER

STATION ID: 17-0021-089-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 58 53.79 LONG: 077 58 34.22

U T M: 18 0265350.0 4985000.0 4

REGION: 04

DISTANCE: 172.034

*=INTERIM TEST-NAME:		FWSADP	FWSTRC	GACF	GACP	GBCF	GBCP	RA226F	UU238
SAMPLE	DATE	NUMBER	DEPTH	STREAM	ALPHA CT	ALPHA CT	BETA CT	BETA CT	RADIUM
YMMDD	HOUR		M	COND.	MBQ/L	MBQ/L	MBQ/L	MBQ/L	238
	LMT								UG/L
830222	1245	15470	0.30	8	220	40<	120	40<	3
830315	1135	15487	0.30	8	65	40<	62	40<	3<
830425	1245	15505	0.30	8	40<	40<	40	40<	3<
830531	1120	15522	0.30	8	60	40<	40<	40<	3<
830616	1230	15540	0.30	8	120	40<	70	40<	3<
830722	1225	15558	0.30		210	40<	50	40<	3
830901	1215	15576	0.30	8	90	40<	80	40<	3<
831025	1500	15603	0.30	8	40<	40<	70	40<	3<
831123	1205	15624	0.30	8	90	3<	70	40<	3<
MAXIMUM		0.30			220		120		3
ARITH MEAN		0.30			122		70		3
GEOM MEAN									
MINIMUM		0.30			60		40		3
STD DEV (GEOM %)									
# SAMP IN STATISTICS		9			7		8		2
% SAMP (EXCLUDED)					22		11		77

1983 WATER QUALITY DATA REGION 4

67

B.O.W./ SITE: TRENT RIVER
 SAMPLE POINT: AT GLEN ROSS BRIDGE
 STATION TYPE: RIVER FLOW GAUGE FED 02HK004

STATION ID: 17-0021-118-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: TRENT RIVER

STORET CODE: 02
 004
 1220

LAT: 44 15 50.10 LONG: 077 35 49.43 U T M: 18 0292700.0 4904250.0 4 REGION: 04 DISTANCE: 23.013

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
				ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
SAMPLE DATE	TIME	SAMPLE	SAMPLE	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	FLOW	COND.
YYMMDD	LMT	NUMBER	DEPTH	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	
			M	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	
830531	1145	16306	0.30	93.9	0.001<	212.0	0.010	10.00	0.115	337.000	
830705	1150	16309	0.30	94.7		212.0		9.00	0.065	47.800	6 9
830803	1130	16314	0.30	95.7	0.001<	214.0	0.005	8.00	0.105	35.700	5 9
830831	1300	16319	0.30	86.3	0.001<	199.0	0.015	8.00	0.100	42.300	5 9
830928	1245	16324	0.30	89.1	0.001<	200.0	0.006	9.00	0.115	26.300	5 9
831101	1130	16329	0.30	98.3	0.001<	222.0	0.021	10.00	0.100	50.600	5 9
MAXIMUM		0.30		98.3		222.0	0.021	10.00	0.115	337.000	
ARITH MEAN		0.30		93.0		209.8	0.011	9.00	0.100	89.950	
GEOM MEAN				92.9		209.7	0.010	8.96	0.098	56.454	
MINIMUM		0.30		86.3		199.0	0.005	8.00	0.065	26.300	
STD DEV (GEOM #)				4.5		8.8	0.007	0.89	0.018	121.345	
# SAMP IN STATISTICS		6		6		6	5	6	6	6	
% SAMP (EXCLUDED)											

*INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
			NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE DATE	TIME	WATER	UNF. TOT.	UNF. TOT.		UNF-REAC	UNF. TOT.	TURB.ITY	UNF. TOT.
YYMMDD	LMT	TEMP	MG/L	MG/L		UG/L	MG/L	FTU	MG/L
		DEG.C	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
830531	1145	16306	14.0	0.002	0.003<	8.26	0.2<T	0.026	0.001
830705	1150	16309	24.0			8.45	1.4	0.021	
830803	1130	16314	24.5	0.002<	0.003<	8.22	-0.4<T	0.026	0.001
830831	1300	16319	22.0	0.002<	0.003<	8.47	0.2<M	0.021	0.001
830928	1245	16324	16.0	0.002<	0.003<	8.35	-0.2<T	0.032	0.002
831101	1130	16329	7.0	0.002<	0.003<	8.15	0.2<T	0.031	0.002
MAXIMUM		24.5	0.002			8.47	1.4	0.032	0.002
ARITH MEAN		17.9	0.002			8.32	0.2<A	0.026	0.001
GEOM MEAN		16.5				8.32		0.026	0.001
MINIMUM		7.0	0.002			8.15	-0.4	0.021	0.001
STD DEV (GEOM #)		6.9				0.13		0.005	0.001
# SAMP IN STATISTICS		6	1			6	6	6	5
% SAMP (EXCLUDED)			80						

1983 WATER QUALITY DATA REGION 4

68

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: FOOTBRIDGE NORTH OF HIGHWAY 2 BELLEVILLE
 STATION TYPE: RIVER

STATION ID: 17-0026-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 09 57.93 LONG: 077 23 13.28 U T M: 18 0309150.0 4892875.0 4 REGION: 04 DISTANCE: 1.127

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	BOD5 BOD 5 DAY	CDUT	CLIDUR	COND25	CRUT	CUUT	
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	ARSENIC UNF.TOT. MG/L AS AS	TOT.DEM. MG/L AS O	CADMIUM UNF.TOT. MG/L AS CD	CHLORIDE UNF.REAC MG/L AS CL-	CONDUCT. 25C UMHO/CM AT 25 C	CHROMIUM UNF.TOT. MG/L AS CR	COPPER UNF.TOT. MG/L AS CU
830110	1330	17012	0.30	0101	90.0	0.005		0.0002<	13.20	233.0	0.006	0.093
830128	1315	15456	0.30	0101								
830208	1140	17025	0.30	0101	87.8	0.003	0.51	0.0002<	5.06	212.0	0.001<	0.005
830217	1345	15465	0.30	0101		0.003						
830307	1350	17038	0.30	0101	108.7	0.004	0.33<T	0.0003	5.85	252.0	0.001<	0.004
830314	1300	15483	0.30	0101		0.002						
830411	1400	15500	0.30	0101		0.002						
		17051	0.30	0101	97.5	0.003	0.59	0.0002<	5.27	224.0	0.002	0.015
830502		17064	0.30	0101	90.3	0.003	2.15	0.0002<	5.77	230.0	0.001<	0.005
830530	1320	15518	0.30	0101		0.005						
830606	1350	17077	0.30	0101	88.2	0.006	0.95	0.0002<	3.39	190.0	0.001	0.007
830614	1330	15535		0101		0.006						
830704	1330	17089	0.30	0101	114.4	0.149	0.77	0.0010	4.10	236.0	0.003	0.008
830725	1520	15553	0.30	0101		0.015						
830802	1450	18002	0.30	0101	108.0	0.017	0.83	0.0002<	4.62	224.0	0.001<	0.003
830823	1535	15571	0.30	0101		0.012						
830906	1320	18015	0.30	0101	95.5	0.014	0.06<T	0.0002<	5.34	212.0	0.001<	0.015
830913	1330	15589	0.30	0101		0.013						
831011	1350	18028	0.30	0101	109.4	0.010	0.64	0.0002<	7.27	248.0	0.001	0.008
831021	1340	15602	0.30	0101		0.008						
831103	1330	18041	0.30	0101	141.7	0.006	0.96	0.0002<	10.56	341.0	0.001<	0.010
831118	1350	15620	0.30	0101		0.006						
831205	1325	18054	0.30	0101	101.0	0.008	1.11	0.0002	7.97	261.0	0.001	0.016
831215	1440	15637	0.30	0101		0.004						
		MAXIMUM	0.30		141.7	0.149	2.15	0.0010	13.20	341.0	0.006	0.016
		ARITH MEAN	0.30		102.7	0.013	0.81<A	0.0005	6.53	238.6	0.002	0.008
		GEOM MEAN			101.8	0.007	0.62<A		6.07	236.2		0.007
		MINIMUM	0.30		87.8	0.002	0.06	0.0002	3.39	190.0	0.001	0.003
		STD DEV (GEOM M)			15.4	0.030	0.54<A		2.84	37.6		0.005
		# SAMP IN STATISTICS	23		12	23	11	3	12	12	6	12
		% SAMP (EXCLUDED)						75			50	

(CONT'D)

1983 WATER QUALITY DATA REGION 4

69

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: FOOTBRIDGE NORTH OF HIGHWAY 2 BELLEVILLE
 STATION TYPE: RIVER

STATION ID: 17-0026-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 09 57.93 LONG: 077 23 13.28 U T M: 18 0309150.0 4892875.0 4 REGION: 04 DISTANCE: 1.127

*=INTERIM	TEST-NAME:	DO	FEUT	FMSTRC	FNTEMP	HGUT	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT
SAMPLE DATE	HOUR	SAMPLE NUMBER	DISOLVED OXYGEN MG/L AS O	IRON UNF.TOT. MG/L AS FE	STREAM COND.	WATER TEMP DEG.C	MERCURY UNF.TOT. UG/L AS HG	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P
830110	1330	17012	12.00	0.475	8	2.0	0.04	0.008	0.012	8.26	0.027
830128	1315	15456			8						
830208	1140	17025	12.00	0.305	8	1.0		0.006	0.003<	8.06	0.040
830217	1345	15465			8						
830307	1350	17038	12.00	0.285	8	2.0		0.002<T	0.003<	8.37	0.019
830314	1300	15483			8						
830411	1400	15500			3						
		17051	12.00	0.155	3	6.0		0.004<T	0.007	8.44	0.026
830502		17064	9.00	0.165	8	12.0		0.004<T	0.003<	8.33	0.026
830606	1350	17077	10.00	0.210	8	17.0		0.006	0.004	8.19	0.022
830704	1330	17089	9.00	0.200	8	22.0		0.044	0.017	8.51	0.038
830802	1450	18002		0.055	7	26.0		0.032	0.003<	8.60	0.018
830823	1535	15571			8						
830906	1320	18015	7.00	0.065	7	26.0		0.046	0.006	8.51	0.026
830913	1330	15589			8						
831011	1350	18028	10.00	0.090	8	14.0		0.026	0.004	8.32	0.026
831021	1340	15602			8						
831103	1330	18041	10.00	0.065	8	7.0		0.022	0.003<	8.37	0.015
831205	1325	18054	12.00	0.115	8	3.0		0.016	0.003<	8.15	0.018
831215	1440	15637			8						
		MAXIMUM	12.00	0.475		26.0	0.04	0.046	0.017	8.60	0.040
		ARITH MEAN	10.45	0.182		11.5	0.04	0.018<A	0.008	8.34	0.025
		GEOM MEAN	10.32	0.148		7.3		0.012<A		8.34	0.024
		MINIMUM	7.00	0.055		1.0	0.04	0.002	0.004	8.06	0.015
		STD DEV (GEOM *)	1.69	0.124		9.4		0.016<A		0.16	0.008
		# SAMP IN STATISTICS	11	12		12	1	12	6	12	12
		% SAMP (EXCLUDED)							50		

(CONTD)

1983 WATER QUALITY DATA REGION 4

70

B.O.W./ SITE: MOIRA RIVER

SAMPLE POINT: FOOTBRIDGE NORTH OF HIGHWAY 2 BELLEVILLE

STATION TYPE: RIVER

STATION ID: 17-0026-001-02

MAJOR BASIN: GREAT LAKES

MINOR BASIN: LAKE ONTARIO

TERM STREAM: MOIRA RIVER

STORET CODE: 02

004

1090

LAT: 44 09 57.93 LONG: 077 23 13.28

U T M: 18 0309150.0 4892875.0 4

REGION: 04

DISTANCE: 1.127

*INTERIM TEST-NAME:		RSP	TURB	ZNUT
SAMPLE DATE	YHMD LNT	RESIDUE PARTIC. MG/L	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
830110	1330	17012	13.500	18.00
830208	1140	17025	2.800	2.60
830307	1350	17038	3.490	1.70
830411	1400	17051	2.260	1.40
830502		17064	3.390	2.10
830606	1350	17077	3.430	2.20
830704	1330	17089	3.790	3.00
830802	1450	18002	0.890<T	1.25
830906	1320	18015	1.570	2.50
831011	1350	18028	2.750	3.70
831103	1330	18041	2.230	1.70
831205	1325	18054	1.700	1.90
MAXIMUM		13.500	18.00	0.017
ARITH MEAN		3.483<A	3.50	0.006
GEOM MEAN		2.755<A	2.49	
MINIMUM		0.890	1.25	0.002
STD DEV (GEOM *)		3.276<A	4.62	
# SAMP IN STATISTICS		12	12	11
% SAMP (EXCLUDED)				8

1983 WATER QUALITY DATA REGION 4

71

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: BRIDGE IN CANNIFTON
 STATION TYPE: RIVER FLOW GAUGE FED 02HL001

STATION ID: 17-0026-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 12 21.66 LONG: 077 23 37.11 U T M: 18 0308750.0 4897325.0 4 REGION: 04 DISTANCE: 6.276

*=INTERIM	TEST-NAME:	FMSADP	FGPROJ	ALKT	ASUT	BOD5	CDUT	CLIDUR	COND25	CRUT	CUUT	
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	ARSENIC UNF.TOT. MG/L AS AS	BOD5 5 DAY TOT.DEM. MG/L AS O	CADMIUM UNF.TOT. MG/L AS CD	CHLORIDE UNF.REAC MG/L AS CL-	CONDUCT. 25C UMHO/CM AT 25 C	CHROMIUM UNF.TOT. MG/L AS CR	COPPER UNF.TOT. MG/L AS CU
830110	1315	17011	0.30	0101	84.7	0.006		0.0007	4.07	203.0	0.002	0.007
830128	1300	15454	0.30	0101		0.003						
830208	1130	17024	0.30	0101	86.1	0.004		0.0002<			0.001<	0.004
830217		15464	0.30	0101		0.003						
830307	1330	17037	0.30	0101	105.5	0.004	0.25<T	0.0003	5.00	242.0	0.001<	0.004
830314	1240	15482	0.30	0101		0.002						
830411	1330	15499	0.30	0101		0.002						
	1345	17050	0.30	0101	107.3		0.64		5.40	244.0		0.010
830502		17063	0.30	0101	97.6	0.004	2.09	0.0002<	4.20	219.0	0.001	0.017
830530	1300	15517	0.30	0101		0.004						
830606	1325	17076	0.30	0101	91.2	0.006	0.83	0.0002<	3.36	199.0	0.001	0.007
830614	1305	15534		0101		0.006						
830704	1310	17088	0.30	0101	110.4	0.149	0.77	0.0008	3.75	226.0	0.003	0.008
830725	1500	15552	0.30	0101		0.014						
830802	1415	18001	0.30	0101	104.1	0.016	0.81		3.96	212.0		0.003
830823	1525	15570	0.30	0101		0.014						
830906	1305	18014	0.30	0101	92.7	0.014	0.44<T	0.0002<	4.03	199.0	0.001<	0.021
830913	1310	15588	0.30	0101		0.015						
831011	1305	18027	0.30	0101	104.1	0.011	0.58	0.0002<	4.95	223.0	0.001	0.008
831021	1320	15601	0.30	0101		0.008						
831103	1300	18040	0.30	0101	136.0	0.007		0.0002<	7.31	317.0	0.001	0.014
831118	1300	15619	0.30	0101		0.006						
831205	1308	18053	0.30	0101	98.3	0.008	1.01	0.0002<	6.01	245.0	0.001	0.031
831215	1425	15636	0.30	0101		0.004						
		MAXIMUM	0.30		136.0	0.149	2.09	0.0008	7.31	317.0	0.003	0.031
		ARITH MEAN	0.30		101.5	0.013	0.82<A	0.0006	4.73	229.9	0.001	0.011
		GEOM MEAN			100.7	0.007	0.71<A		4.61	227.9		0.009
		MINIMUM	0.30		84.7	0.002	0.25	0.0003	3.36	199.0	0.001	0.003
		STD DEV (GEOM %)			13.7	0.030	0.53<A		1.16	33.6		0.008
		# SAMP IN STATISTICS	23		12	23	9	3	11	11	7	12
		% SAMP (EXCLUDED)						70			30	

(CONTD)

1983 WATER QUALITY DATA REGION 4

72

B.O.W./ SITE: MOIRA RIVER
SAMPLE POINT: BRIDGE IN CANNIFTON
STATION TYPE: RIVER FLOW GAUGE FED 02HL001

STATION ID: 17-0026-002-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: LAKE ONTARIO
TERN STREAM: MOIRA RIVER

STORET CODE: 02
004
1090

LAT: 44 12 21.66 LONG: 077 23 37.11 U T M: 18 0308750.0 4897325.0 4 REGION: 04 DISTANCE: 6.276

#=INTERIM		TEST-NAME:	DO	FWFLOW	FWSTRC	FWTEMP	HGUT	NNHTFR	NNOTFR	NNO2FR	NNO3FR	NNTKUR
			DISOLVED	STREAM			MERCURY	NH3-N				K'DAHL N
SAMPLE			OXYGEN	FLOW			UNF.TOT.	TOTAL	NO2+NO3N	NO2-N	NO3-N	TOTAL
DATE	HOUR	SAMPLE	MG/L	M3	STREAM	WATER	UG/L	FIL.REAC	FIL.REAC	FIL.REAC	FIL.REAC	UNF.REAC
YYMMDD	LMT	NUMBER	AS O	/S	COND.	TEMP	AS HG	MG/L	MG/L	MG/L	MG/L	MG/L
						DEG.C		AS N	AS N	AS N	AS N	AS N
830110	1315	17011	11.00	50.800	8	2.0		0.006	0.220	0.0330	0.187	0.460
830128	1300	15454		26.300	8							
830208	1130	17024	11.00	52.700	8	1.0	0.04		0.350	0.0700	0.280	0.470
830217		15464		27.700	8							
830307	1330	17037	12.00	37.100	8	2.0		0.004	0.340	0.0210	0.319	0.410
830314	1240	15482		62.900	8							
830411	1330	15499		82.200	3							
	1345	17050	11.00	82.200	3	6.8		0.002<T				
830502		17063	10.00	57.600	8	12.6	0.38	0.006	0.115	0.0325	0.083	0.420
830530	1300	15517		57.700								
830606	1325	17076	9.00	35.500	8	17.0		0.004<T	0.140	0.0210	0.119	0.460
830614	1305	15534		21.100								
830704	1310	17088	10.00	5.920	8	22.0	0.10	0.044	0.010<T	0.0035	0.007<T	0.440
830725	1500	15552		1.710								
830802	1415	18001		2.910	8	27.0	2.10	0.040				
830823	1525	15570		2.070	8							
830906	1305	18014	9.00	1.350	1 0	26.0	2.60U	0.034	0.010<T	0.0020	0.008<T	0.500
830913	1310	15588		0.898	8							
831011	1305	18027	11.00	2.280	8	13.0	0.01	0.022	0.045	0.0040	0.041	0.450
831021	1320	15601		2.420	8							
831103	1300	18040	11.00	2.920	8	7.0	0.02U	0.022	0.125	0.0040	0.121	0.430
831118	1300	15619		9.370								
831205	1308	18053	12.00	18.800	8	3.0	0.02U	0.018	0.110	0.0030	0.107	0.470
831215	1425	15636		52.500	8							
		MAXIMUM	12.00	82.200		27.0	2.60	0.044	0.350	0.0700	0.319	0.500
		ARITH MEAN	10.64	29.039		11.5	0.66	0.018<A	0.146<A	0.0194	0.127<A	0.451
		GEOM MEAN	10.59	13.241		7.3	0.12	0.012<A	0.087<A	0.0101	0.074<A	0.450
		MINIMUM	9.00	0.898		1.0	0.01	0.002	0.010	0.0020	0.007	0.410
		STD DEV (GEOM *)	1.03	27.225		9.6	1.06	0.015<A	0.122<A	0.0217	0.107<A	0.027
		# SAMP IN STATISTICS	11	24		12	8	11	10	10	10	10
		% SAMP (EXCLUDED)										

(CONTD)

III

1983 WATER QUALITY DATA REGION 4

73

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: BRIDGE IN CANNIFTON
 STATION TYPE: RIVER FLOW GAUGE FED 02HL001

STATION ID: 17-0026-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 12 21.66 LONG: 077 23 37.11 U T M: 18 0308750.0 4897325.0 4 REGION: 04 DISTANCE: 6.276

*INTERIM TEST-NAME:		PBUT	PH	PP04FR	PPUT	RSF	RSP	TURB	ZNUT
		LEAD		P04	PHOSPHOR				ZINC
SAMPLE	DATE	UNF.TOT.		FIL.REAC	UNF.TOT.	RESIDUE	RESIDUE	TURB'ITY	UNF.TOT.
DATE	DATE	MG/L		MG/L	MG/L	MG/L	MG/L	FTU	MG/L
YYMMDD	YYMMDD	AS PB	PH	AS P	AS P	MG/L	MG/L		AS ZN
830110	1315	17011	0.003<	8.31	0.0030	0.014	148.0	2.00	0.009
830208	1130	17024	0.003<	8.09	0.0050	0.026	94.3	3.020	0.006
830307	1330	17037	0.003<	8.34	0.0040	0.015	156.0	2.570	0.006
830411	1345	17050	0.003<	8.56		0.019		2.30	0.008
830502		17063	0.010	8.24	0.0040	0.029	142.0	2.250	0.009
830606	1325	17076	0.003<	8.07	0.0110	0.032	156.0	3.640	0.006
830704	1310	17088	0.017	8.74	0.0070	0.021	147.0	1.030	0.004
830802	1415	18001	0.004	8.75		0.025		1.45	0.005
830906	1305	18014	0.006	8.85	0.0060	0.023	129.0	1.880	0.003
831011	1305	18027	0.003<	8.48	0.0040	0.019	145.0	3.210	0.023
831103	1300	18040	0.003<	8.32	0.0020<T	0.016	206.0	2.990	0.093
831205	1308	18053	0.004	8.12	0.0025<T	0.017	159.0	1.260	0.015
MAXIMUM		0.017	8.85	0.0110	0.032	206.0	3.640	2.90	0.023
ARITH MEAN		0.008	8.41	0.0048<A	0.021	148.2	2.428	1.86	0.008
GEOM MEAN			8.40	0.0043<A	0.021	145.8	2.252	1.75	0.007
MINIMUM		0.004	8.07	0.0020	0.014	94.3	1.030	0.70	0.003
STD DEV (GEOM *)			0.27	0.0026<A	0.006	27.7	0.896	0.62	0.006
# SAMP IN STATISTICS		5	12	10	12	10	9	11	12
% SAMP (EXCLUDED)		58							

1983 WATER QUALITY DATA REGION 4

74

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: AT STOCO LAKE OUTLET
 STATION TYPE: RIVER

STATION ID: 17-0026-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 27 30.51 LONG: 077 17 55.21 U T M: 18 0317125.0 4925150.0 4 REGION: 04 DISTANCE: 43.773

*=INTERIM TEST-NAME:		FWSADP	FWDPTS	FGPROJ	ASUT	DO	FMSTRC	FWTEMP	
SAMPLE DATE	YMMDD LMT	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ARSENIC UNF.TOT. MG/L AS AS	DISOLVED OXYGEN MG/L AS O	STREAM COND.	WATER TEMP DEG.C
830110	0850	17000	0.30		0101	0.006	12.00	4	1.0
830207	0845	17013	0.30		0101	0.003	13.00	4	1.0
830307	0835	17026	0.30		0101	0.003	11.00	4	2.0
830314	1215	15481	0.30		0101	0.003		8	
830411	0825	17039	0.30	0.30	0101	0.002	11.00	8	6.0
	1305	15498	0.30		0101	0.003		3	
830502		17052	0.30		0101	0.003	10.00	8	12.0
830530	1235	15516	0.30		0101	0.005			
830606	0835	17065	0.30		0101	0.006	8.00	8	17.0
830614	1240	15533			0101	0.005			
830704	0836	17077	0.30		0101	0.008	8.00	8	20.0
830725	1415	15551	0.30		0101	0.013			
830802	0845	17090	0.30		0101	0.017		8	24.0
830823	1500	15569	0.30		0101	0.025		8	
830906	0824	18003	0.30		0101	0.032	8.00	8	25.0
830913	1240	15587	0.30		0101	0.038		8	
831011	0812	18016	0.30		0101	0.030	10.00	8	14.0
831021	1250	15600	0.30		0101	0.025		8	
831103	0820	18029	0.30		0101	0.018	10.00	8	7.0
831118	1230	15618	0.30		0101	0.016			
831205	0842	18042	0.30		0101	0.008	9.00	4	3.0
831215	1355	15635	0.30		0101	0.009		8	
		MAXIMUM	0.30	0.30		0.038	13.00		25.0
		ARITH MEAN	0.30	0.30		0.013	10.00		11.0
		GEOM MEAN				0.009	9.87		6.7
		MINIMUM	0.30	0.30		0.002	8.00		1.0
		STD DEV (GEOM #)				0.011	1.67		8.9
		# SAMP IN STATISTICS	21	1		22	11		12
		% SAMP (EXCLUDED)							

1983 WATER QUALITY DATA REGION 4

76

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: JAMESON STREET TWEED
 STATION TYPE: RIVER FLOW GAUGE FED 02HL101

STATION ID: 17-0026-006-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 28 48.83 LONG: 077 18 48.76

U T M: 18 0316010.0 4927600.0 4

REGION: 04

DISTANCE: 50.210

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ASUT	DO	FWSTRC	FWTEMP
SAMPLE DATE	HHMM	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ARSENIC UNF. TOT. MG/L AS AS	DISOLVED OXYGEN MG/L AS O	WATER TEMP DEG.C
830110	0935	17004	0.30	0101	0.007	13.00	2.0
830128	1215	15452	0.30	0101	0.004		
830207	0905	17017	0.30	0101	0.004	12.00	1.0
830217	1215	15462	0.30	0101	0.005		
830307	0900	17030	0.30	0101	0.003	12.00	2.0
830314	1145	15477	0.30	0101	0.004		
	1155	15478	0.30	0101	0.001<		
830411	0905	17043	0.30	0101	0.003	10.00	6.0
	1225	15494	0.30	0101	0.003		
830502		17056	0.30	0101	0.003	10.00	12.0
830530	1205	15512	0.30	0101	0.006		
830606	0910	17069	0.30	0101	0.008	9.00	16.0
830614	1155	15529		0101	0.008		
830704	0905	17081	0.30	0101	0.010	8.00	22.0
830725	1300	15547	0.30	0101	0.011		
830802	0928	17094	0.30	0101	0.007		24.0
830823	1420	15565	0.30	0101	0.005		
830906	0900	18007	0.30	0101	0.005	9.00	25.0
830913	1205	15583	0.30	0101	0.005		
831011	0920	18020	0.30	0101	0.007	10.00	14.0
831021	1220	15596	0.30	0101	0.005		
831103	0900	18033	0.30	0101	0.005	11.00	7.0
831118	1200	15614	0.30	0101	0.001		
831205	0915	18046	0.30	0101	0.014	11.00	3.0
831215	1320	15631	0.30	0101	0.006		
		MAXIMUM	0.30		0.014	13.00	25.0
		ARITH MEAN	0.30		0.006	10.45	11.2
		GEOM MEAN				10.36	7.2
		MINIMUM	0.30		0.001	8.00	1.0
		STD DEV (GEOM *)				1.51	9.0
		# SAMP IN STATISTICS	24		24	11	12
		% SAMP (EXCLUDED)			4		

III

1983 WATER QUALITY DATA REGION 4

77

B.O.W./ SITE: CLARE RIVER
 SAMPLE POINT: 1ST.BRIDGE UPSTR.OF STOCO LAKE TWEED
 STATION TYPE: RIVER

STATION ID: 17-0026-007-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 28 53.48 LONG: 077 16 17.75 U T M: 18 0319350.0 4927650.0 4 REGION: 04 DISTANCE: 52.785

*INTERIM TEST-NAME:		FWSADP	FWDPTS	FGPROJ	ALKT	ASUT	BOD5 BOD 5 DAY	CDUT	CLIDUR	COND25	CRUT	
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CACO3	ARSENIC UNF.TOT. MG/L AS AS	TOT.DEM. MG/L AS O	CADMIUM UNF.TOT. MG/L AS CD	CHLORIDE UNF.REAC MG/L AS CL-	CONDUCT. 25C UMH/CM AT 25 C	CHROMIUM UNF.TOT. MG/L AS CR
830110	0910	17002	0.30		0101	109.3	0.001<		0.0002<	3.39	240.0	0.001
830307	0845	17028	0.30		0101	112.6	0.001<	0.28	0.0002	4.28	246.0	0.001<
830314	1200	15479	0.30		0101		0.001<					
830411	0850	17041	0.30	0.30	0101	102.0	0.001<	0.62	0.0002	4.02	225.0	0.002
	1240	15496	0.30		0101		0.001<					
830502		17054	0.30		0101	114.2	0.001<	1.66	0.0002<	3.17	245.0	0.001
830530	1220	15514	0.30		0101		0.001					
830606	0850	17067	0.30		0101	125.0	0.001	0.76	0.0002<	3.03	251.0	0.001
830614	1220	15531			0101		0.001					
830704	0853	17079	0.30		0101		0.002	0.51		2.73	273.0	
830725	1345	15549	0.30		0101		0.003					
830802	0910	17092	0.30		0101	148.5	0.004	0.67	0.0002<	3.11	282.0	0.003
830823	1440	15567	0.30		0101		0.003					
830906	0845	18005	0.30		0101	19.5	0.004	0.01<	0.0006	3.24	275.0	0.002
830913	1220	15585	0.30		0101		0.003					
831011	0905	18018	0.30		0101	145.7	0.003	0.94	0.0002<	3.84	288.0	0.002
831021	1235	15598	0.30		0101		0.001					
831103	0845	18031	0.30		0101	138.2	0.001<	0.72	0.0002<	4.87	317.0	0.001
831118	1215	15616	0.30		0101		0.001<					
831205	0900	18044	0.30		0101	101.3	0.001<	0.78	0.0002<	5.30	245.0	0.002
831215	1335	15633	0.30	0.08	0101		0.001<					
		MAXIMUM	0.30	0.30		148.5	0.004	1.66	0.0006	5.30	317.0	0.003
		ARITH MEAN	0.30	0.19		111.6	0.002	0.69<	0.0003	3.73	262.5	0.002
		GEOM MEAN				100.6		0.46<		3.65	261.2	
		MINIMUM	0.30	0.08		19.5	0.001	0.01	0.0002	2.73	225.0	0.001
		STD DEV (GEOM *)				36.7		0.43<		0.82	26.8	
		# SAMP IN STATISTICS	20	2		10	11	10	3	11	11	9
		% SAMP (EXCLUDED)					47		70			10

(CONT'D)

1983 WATER QUALITY DATA REGION 4

78

B.O.W./ SITE: CLARE RIVER
 SAMPLE POINT: 1ST.BRIDGE UPSTR.OF STOCO LAKE TWEED
 STATION TYPE: RIVER

STATION ID: 17-0026-007-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 28 53.48 LONG: 077 16 17.75

U T M: 18 0319350.0 4927650.0 4

REGION: 04

DISTANCE: 52.785

* INTERIM TEST-NAME:		CUUT	DO	FEUT	FWSTRC	FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT
SAMPLE DATE	HOUR	COPPER UNF.TOT. MG/L	DISOLVED OXYGEN MG/L	IRON UNF.TOT. MG/L	STREAM COND.	WATER TEMP DEG.C	FIL.REAC MG/L	LEAD UNF.TOT. MG/L	PH	PHENOLS UNF-REAC UG/L	PHOSPHOR UNF.TOT. MG/L
YYMMDD	LMT	AS CU	AS O	AS FE			AS N	AS PB		PHENOL	AS P
830110	0910	17002	0.006	11.00	0.205	4	1.0	0.024	0.003<	8.23	0.012
830307	0845	17028	0.006	12.00	0.300	8	2.0	0.002<T	0.003<	8.26	0.024
830314	1200	15479				8					
830411	0850	17041	0.020	10.00	0.230	8	6.0	0.004<T	0.007	8.38	0.030
	1240	15496				3					
830502		17054	0.014	9.00	0.190	8	12.0	0.004<T	0.003<	7.91	0.020
830606	0850	17067	0.009	7.00	0.220	8	17.0	0.014	0.003<	8.13	0.018
830704	0853	17079		6.00		8	24.0	0.030			0.026
830802	0910	17092	0.009		1.300	5	24.0	0.058	0.003	7.89	0.046
830823	1440	15567				8					
830906	0845	18005	0.014	7.00	0.215	5	25.0	0.060	0.013	8.04	0.036
830913	1220	15585				8					
831011	0905	18018	0.005	9.00	0.270	8	14.0	0.074	0.005	8.20	0.033
831021	1235	15598				8					
831103	0845	18031	0.011	10.00	0.185	8	7.0	0.046	0.003<	7.92	-0.4<T
831205	0900	18044	0.011	10.00	0.135	8	3.0	0.016	0.003<	7.75	-0.2<T
831215	1335	15633				8					
		MAXIMUM	0.020	12.00	1.300		25.0	0.074	0.013	8.38	0.046
		ARITH MEAN	0.010	9.10	0.325		12.3	0.030<A	0.007	8.07	0.026
		GEOM MEAN	0.010	8.91	0.254		8.1	0.018<A		8.07	0.024
		MINIMUM	0.005	6.00	0.135		1.0	0.002	0.003	7.75	-0.4
		STD DEV (GEOM #)	0.005	1.91	0.346		9.2	0.025<A		0.20	0.010
		# SAMP IN STATISTICS	10	10	10		11	11	4	10	9
		% SAMP (EXCLUDED)							60		11

(CONT D)

III

1983 WATER QUALITY DATA REGION 4

79

B.O.W./ SITE: CLARE RIVER
 SAMPLE POINT: 1ST.BRIDGE UPSTR.OF STOCO LAKE TWEED
 STATION TYPE: RIVER

STATION ID: 17-0026-007-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 28 53.48 LONG: 077 16 17.75 U T M: 18 0319350.0 4927650.0 4 REGION: 04 DISTANCE: 52.785

*INTERIM TEST-NAME:		RSP	TURB	ZNUT
		RESIDUE		ZINC
SAMPLE		PARTIC.	TURB'ITY	UNF.TOT.
DATE	HR	MG/L	FTU	MG/L
YYMMDD	LMT	NUMBER		AS ZN
830110	0910	17002	2.240	0.009
830307	0845	17028	3.850	0.011
830411	0850	17041	3.040	0.007
830502		17054	4.660	0.006
830606	0850	17067	2.140	0.008
830704	0853	17079	1.80	
830802	0910	17092	17.50	0.018
830906	0845	18005	2.320	0.013
831011	0905	18018	2.200	0.011
831103	0845	18031	2.560	0.007
831205	0900	18044	0.920	0.012
MAXIMUM		4.660	17.50	0.018
ARITH MEAN		2.659	3.68	0.010
GEOM MEAN		2.447	2.71	0.010
MINIMUM		0.920	1.70	0.006
STD DEV (GEOM #)		1.082	4.61	0.004
# SAMP IN STATISTICS		9	11	10
% SAMP (EXCLUDED)				

1983 WATER QUALITY DATA REGION 4

80

B.D.W./ SITE: SULPHIDE CREEK
 SAMPLE POINT: UPSTREAM FROM STOCO LAKE HUNGERFORD TWP
 STATION TYPE: RIVER

STATION ID: 17-0026-008-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 29 51.84 LONG: 077 16 57.37

U T M: 18 0318525.0 4929475.0 4

REGION: 04

DISTANCE: 52.785

*INTERIM TEST-NAME:		FWSADP	FWDPTS	FGPROJ	ASUT	DO	FWSTRC	FWTEMP
SAMPLE	DATE	SAMPLE	WATER	PROJECT	ARSENIC	DISOLVED		
DATE	DATE	DEPTH	DEPTH	SUB-PROJ	UNF. TOT.	OXYGEN	STREAM	WATER
YYMMDD	YYMMDD	NUMBER	NUMBER	CODE	MG/L	MG/L	COND.	TEMP
LMT	LMT				AS AS	AS O		DEG.C
830307 0850	17029	0.30		0101	0.001<	10.00	4	2.0
830411 0900	17042	0.30	0.30	0101	0.001<	11.00	8	6.0
1235	15495	0.30		0101	0.001<		3	
830502	17055	0.30		0101	0.001<	10.00	3	12.0
830530 1215	15513	0.30		0101	0.001<			
830606 0900	17068	0.30		0101	0.001<	7.00	8	17.0
830614 1215	15530	0.30		0101	0.001			
830704 0905	17080	0.30		0101	0.001<	7.00	8	22.0
830725 1335	15548	0.30		0101	0.002			
830802 0915	17093	0.30		0101	0.001<		9	23.0
830823 1435	15566	0.30		0101	0.015		9	
830906 0850	18006	0.30		0101	0.017	7.00	9	25.0
830913 1215	15584	0.30		0101	0.004		8	
831011 0910	18019	0.30		0101	0.001<	9.00	8	15.0
831021 1230	15597	0.30		0101	0.001<		8	
831103 0850	18032	0.30		0101	0.001<	9.00	8	8.0
831118 1210	15615	0.30		0101	0.001<			
831205 0900	18045	0.30		0101	0.001<	9.00	4	4.0
831215 1330	15632	0.30		0101	0.001<		8	
MAXIMUM		0.30	0.30		0.017	11.00		25.0
ARITH MEAN		0.30	0.30		0.008	8.78		13.4
GEOM MEAN						8.66		10.4
MINIMUM		0.30	0.30		0.001	7.00		2.0
STD DEV (GEOM #)						1.48		8.3
# SAMP IN STATISTICS		18	1		5	9		10
% SAMP (EXCLUDED)					73			

1983 WATER QUALITY DATA REGION 4

81

B.O.W./ SITE: SKOOTAMOTTA RIVER
 SAMPLE POINT: HIGHWAY 7 NEAR ACTINOLITE
 STATION TYPE: RIVER FLOW GAUGE FED 02HL004

STATION ID: 17-0026-009-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 32 57.30 LONG: 077 19 42.11 U T M: 18 0315050.0 4935300.0 4 REGION: 04 DISTANCE: 60.671

*=INTERIM	TEST-NAME:	FWSADP	FGPROJ	ALKT	ASUT	BOD5	CCNAUR	CDUT	CLIDUR	COND25	CRUT
						BOD	CYANIDE				
						5 DAY	AVAIL				
SAMPLE			PROJECT	ALK	ARSENIC	TOT. DEM.	UNF. REAC	CADMIUM	CHLORIDE	CONDUCT.	CHROMIUM
DATE	HOUR	SAMPLE	SUB-PROJ	TOTAL	UNF. TOT.	MG/L	MG/L	UNF. TOT.	UNF. REAC	25C	UNF. TOT.
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	AS O	AS HCN	MG/L	MG/L	UMHO/CM	MG/L
				AS CACO3	AS AS			AS CD	AS CL-	AT 25 C	AS CR
830110	1000	17005	0101	17.2	0.001<			0.0002<	1.29	61.4	0.005
830208	0850	17018	0101	23.8	0.001<	0.47	0.001<M	0.0002<	1.56	68.2	0.001<
830217	1155	15461	0101		0.001<						
830307	0955	17031	0101	27.7	0.001<	0.46		0.0003	2.52	80.2	0.001<
830314	1130	15476	0101		0.001<						
830411	1010	17044	0101	18.6	0.001	0.86		0.0002<	1.41	55.2	0.002
	1215	15493	0101		0.001<						
830502		17057	0101	23.7	0.001<	1.76		0.0002<	1.62	65.4	0.001<
830530	1140	15511	0101		0.001<						
830606	1015	17070	0101	19.2	0.001<	0.80		0.0002<	0.83	55.7	0.001<
830614	1140	15528	0101		0.001<						
830704	0926	17082	0101	25.8	0.001	0.74		0.0007	1.33	74.6	0.003
830725	1230	15546	0101		0.001<						
830802	0945	17095	0101	27.3	0.001	0.87		0.0002<	1.38	73.5	0.001<
830823	1325	15564	0101		0.001<						
830906	0940	18008	0101	21.9	0.001<	0.01<T		0.0002<	0.94	60.4	0.001<
830913	1150	15582	0101		0.001<						
831011	1000	18021	0101	23.6	0.001<	0.63		0.0002<	1.39	64.5	0.001<
831021	1200	15595	0101		0.001<						
831103	0930	18034	0101	31.5	0.001<	0.75		0.0020	2.93	103.1	0.005
831118	1150	15613	0101		0.001<						
831205	0955	18047	0101	23.0	0.001<	1.16		0.0002<	3.48	88.9	0.001
831215	1300	15630	0101		0.001<						
		MAXIMUM	0.30	31.5	0.001	1.76	0.001	0.0020	3.48	103.1	0.005
		ARITH MEAN	0.30	23.6	0.001	0.77<A	0.001<A	0.0010	1.72	70.9	0.003
		GEOM MEAN		23.3		0.53<A			1.58	69.7	
		MINIMUM	0.30	17.2	0.001	0.01	0.001	0.0003	0.83	55.2	0.001
		STD DEV (GEOM *)		4.1		0.44<A			0.81	14.2	
		# SAMP IN STATISTICS	22	12	3	11	1	3	12	12	5
		% SAMP (EXCLUDED)			86			75			58

(CONT'D)

1983 WATER QUALITY DATA REGION 4

82

B.O.W./ SITE: SKOOTAMOTTA RIVER
 SAMPLE POINT: HIGHWAY 7 NEAR ACTINOLITE
 STATION TYPE: RIVER FLOW GAUGE FED 02HL004

STATION ID: 17-0026-009-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 32 57.30 LONG: 077 19 42.11

U T M: 18 0315050.0 4935300.0 4

REGION: 04

DISTANCE: 60.671

*INTERIM TEST-NAME:		CUUT	DO	FEUT	FWFLOW	FWSTRC	FWTEHP	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL
SAMPLE DATE	HR	COPPER UNF.TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	IRON UNF.TOT. MG/L AS FE	STREAM FLOW M3 /S	STREAM COND.	WATER TEMP DEG.C	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PH	PHENOLS UNF-REAC UG/L PHENOL
YYMMDD	LMT	SAMPLE NUMBER									
830110	1000	17005	0.005	12.00	0.320	12.200	8	2.0	0.032	0.003<	7.30
830208	0850	17018	0.002	12.00	0.515	10.900	4	1.0	0.100	0.003<	7.54
830217	1155	15461				6.360	8				0.2<T
830307	0955	17031	0.004	12.00	0.680	12.600	8	2.0	0.004	0.003<	7.68
830314	1130	15476				17.100	8				0.2<T
830411	1010	17044	0.016	12.00	0.240	28.500	8	6.0	0.008	0.007	7.54
	1215	15493				28.500	3				0.6<T
830502		17057	0.009	8.00	0.310	22.300	8	12.0	0.004<T	0.003<	7.46
830530	1140	15511				16.300					0.2<T
830606	1015	17070	0.004	8.00	0.445	9.480	8	16.0	0.006	0.003<	7.49
830614	1140	15528				5.940					0.8
830704	0926	17082	0.004	8.00	0.470	0.964	8	22.0	0.052	0.017	7.47
830725	1230	15546				0.610					0.2<T
830802	0945	17095	0.003		0.335	0.992	8	24.0	0.110	0.006	7.28
830823	1325	15564				0.590	8				0.4<T
830906	0940	18008	0.014	9.00	0.215	0.496	8	25.0	0.028	0.007	7.59
830913	1150	15582				0.449					0.2<M
831011	1000	18021	0.004	11.00	0.295	0.456	8	13.0	0.040	0.003<	7.56
831021	1200	15595				0.452	8				0.2<T
831103	0930	18034	0.012	11.00	0.310	0.560	8	5.0	0.028	0.055	7.52
831118	1150	15613				3.400					-0.2<T
831205	0955	18047	0.016	11.00	0.290	4.100	8	2.0	0.028	0.003<	7.57
831215	1300	15630				18.100	8				0.2<M
		MAXIMUM	0.016	12.00	0.680	28.500		25.0	0.110	0.055	7.68
		ARITH MEAN	0.008	10.36	0.369	8.754		10.8	0.037<A	0.018	7.50
		GEOM MEAN	0.006	10.22	0.350	3.613		6.7	0.022<A		7.50
		MINIMUM	0.002	8.00	0.215	0.449		1.0	0.004	0.006	7.28
		STD DEV (GEOM *)	0.005	1.75	0.134	9.217		9.1	0.035<A		0.11
		# SAMP IN STATISTICS	12	11	12	23		12	12	5	11
		% SAMP (EXCLUDED)								58	

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

83

B.O.W./ SITE: SKOOTAMOTTA RIVER
 SAMPLE POINT: HIGHWAY 7 NEAR ACTINOLITE
 STATION TYPE: RIVER FLOW GAUGE FED 02HL004

STATION ID: 17-0026-009-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 32 57.30 LONG: 077 19 42.11 U T M: 18 0315050.0 4935300.0 4 REGION: 04 DISTANCE: 60.671

*=INTERIM		TEST-NAME:	PPUT PHOSPHOR	RSP	TURB	ZNUT ZINC
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	UNF.TOT. MG/L AS P	RESIDUE PARTIC. MG/L	TURB*ITY FTU	UNF.TOT. MG/L AS ZN
830110	1000	17005	0.012	1.540	1.70	0.007
830208	0850	17018	0.027	2.690	1.90	0.013
830307	0955	17031	0.019	5.660	1.80	0.008
830411	1010	17044	0.026	3.880	1.40	0.012
830502		17057	0.031	5.310	2.00	0.017
830606	1015	17070	0.020	2.860	2.30	0.013
830704	0926	17082	0.023	1.590	1.90	0.007
830802	0945	17095	0.022	3.320	1.60	0.015
830906	0940	18008	0.013	0.480<T	1.50	0.035
831011	1000	18021	0.025	2.160	2.70	0.002
831103	0930	18034	0.022	5.320	2.50	0.005
831205	0955	18047	0.023	-0.360<T	1.40	0.009
MAXIMUM			0.031	5.660	2.70	0.035
ARITH MEAN			0.022	2.871<A	1.89	0.012
GEOM MEAN			0.021		1.85	0.010
MINIMUM			0.012	-0.360	1.40	0.002
STD DEV (GEOM *)			0.005		0.42	0.008
# SAMP IN STATISTICS			12	12	12	12
% SAMP (EXCLUDED)						

1983 WATER QUALITY DATA REGION 4

84

B.O.W./ SITE: BLACK RIVER
 SAMPLE POINT: HIGHWAY 7 2 MILES EAST OF ACTINOLITE
 STATION TYPE: RIVER FLOW GAUGE FED 02HL003

STATION ID: 17-0026-010-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 32 21.03 LONG: 077 22 10.19

U T M: 18 0311750.0 4934275.0 4

REGION: 04

DISTANCE: 62.763

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ASUT	DO	FWFLOW	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ARSENIC	DISOLVED	STREAM		WATER
DATE	THOUR	DEPTH	SUB-PROJ	UNF. TOT.	OXYGEN	FLOW	COND.	TEMP
YYMMDD	LMT	M	CODE	MG/L	MG/L	M3		DEG.C
				AS AS	AS O	/S		
830110	1010	17006	0101	0.001<	12.00	8.330	8	2.0
830208	0905	17019	0101	0.001<	13.00	7.440	4	1.0
830217	1145	15460	0101	0.001<		6.140	8	
830307	1005	17032	0101	0.001<	11.00	10.300	8	2.0
830314	1120	15475	0101	0.001<		11.600	8	
830411	1015	17045	0101	0.001<	10.00	17.900	8	6.0
	1205	15492	0101	0.001<		17.900	3	
830502		17058	0101	0.001<	9.00	14.000	8	12.0
830530	1135	15510	0101	0.001<		10.500		
830606	1030	17071	0101	0.001<	9.00	6.470	8	16.0
830614	1135	15527	0101	0.001		4.140		
830704	0940	17083	0101	0.001	6.00	1.450	8	22.0
830725	1225	15545	0101	0.001		1.250		
830802	0955	17096	0101	0.001<		1.520	8	24.0
830823	1315	15563	0101	0.001<		1.280	8	
830906	0950	18009	0101	0.001<	9.00	0.429	8	25.0
830913	1140	15581	0101	0.001<		0.416	8	
831011	1013	18022	0101	0.001<	11.00	0.320	8	13.0
831021	1155	15594	0101	0.001<		0.310	8	
831103	0940	18035	0101	0.001<	10.00	0.688	8	5.0
831118	1140	15612	0101	0.001<		1.890		
831205	1010	18048	0101	0.001<	11.00	3.200	8	2.0
831215	1220	15629	0101	0.001<		7.120	8	
	MAXIMUM	0.30		0.001	13.00	17.900		25.0
	ARITH MEAN	0.30		0.001	10.09	5.852		10.8
	GEOM MEAN				9.91	3.016		6.7
	MINIMUM	0.30		0.001	6.00	0.310		1.0
	STD DEV (GEOM *)				1.87	5.6 ⁹		9.1
	* SAMP IN STATISTICS	22		3	11	23		12
	% SAMP (EXCLUDED)			86				

1983 WATER QUALITY DATA REGION 4

85

B.O.W./ SITE: MOIRA LAKE
 SAMPLE POINT: COUNTY BRIDGE 1 MILE SOUTH OF MADOC
 STATION TYPE: LAKE

STATION ID: 17-0026-011-01

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 28 42.03 LONG: 077 28 05.71

U T M: 18 0303700.0 4927750.0 4

REGION: 04

DISTANCE: 71.453

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	BOD5	CLIDUR	COND25	CUUT	DO	FWSTRC	
SAMPLE DATE	HOUR	SAMPLE NUMBER	SAMPLE DEPTH	PROJECT SUB-PROJ CODE	ALK TOTAL	ARSENIC UNF.TOT.	BOD 5 DAY	CHLORIDE UNF.REAC	CONDUCT. 25C	COPPER UNF.TOT.	DISOLVED OXYGEN	STREAM COND.
YYMMDD	LMT		M		MG/L	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	
				AS CAC03	AS AS	TOT.DEM.	AS O	AS CL-	AT 25 C	AS CU	AS O	
830110	1130	17010	0.30	0101	119.1	0.014		5.09	276.0	0.002	11.00	4
830128	1010	15450	0.30	0101		0.016						8
830208	1055	17023	0.30	0101	113.8	0.013	0.50	7.53	270.0	0.007	11.00	4
830217	1010	15456	0.30	0101		0.013						8
830307	1120	17036	0.30	0101		0.008	0.17<T		345.0	0.003	11.00	8
830314	0955	15471	0.30	0101		0.001						8
830411	1000	15488	0.30	0101		0.009						8
	1130	17049	0.30	0101	116.0	0.012	0.53	5.90	256.0	0.011	12.00	8
830502		17062	0.30	0101	117.0	0.015	1.78	5.20	256.0	0.023	10.00	8
830530	1025	15506	0.30	0101		0.030						
830606	1145	17075	0.30	0101	117.4	0.031	1.08	3.99	247.0	0.009	9.00	8
830614	1010	15523		0101		0.030						
830704	1140	17087	0.30	0101	128.0	0.130	1.00	5.24	265.0	0.003	7.00	8
830725	1105	15541	0.30	0101		0.080						
830802	1315	18000	0.30	0101	128.5	0.087	1.66	5.25	263.0	0.003		8
830823	1150	15559	0.30	0101		0.090						5
830906	1115	18013	0.30	0101	112.4	0.150	0.44<T	5.67	243.0	0.003	8.00	5
830913	0955	15577	0.30	0101		0.111						8
831011	1130	18026	0.30	0101	118.3	0.069	1.99	5.64	248.0	0.009	11.00	8
831021	1020	15590	0.30	0101		0.046						8
831103	1115	18039	0.30	0101	122.9	0.060	1.13	7.04	273.0	0.009	10.00	8
831118	1020	15608	0.30	0101		0.050						
831205	1115	18052	0.30	0101							9.00	8
831215	1035	15625	0.30	0101		0.034						8
MAXIMUM			0.30		128.5	0.150	1.99	7.53	345.0	0.023	12.00	
ARITH MEAN			0.30		119.3	0.048	1.03<A	5.65	267.5	0.007	9.91	
GEOM MEAN					119.2	0.029	0.82<A	5.58	266.3	0.006	9.80	
MINIMUM			0.30		112.4	0.001	0.17	3.99	243.0	0.002	7.00	
STD DEV (GEOM *)					5.5	0.042	0.62<A	1.01	27.9	0.006	1.51	
# SAMP IN STATISTICS			23		10	23	10	10	11	11	11	
% SAMP (EXCLUDED)												

(CONTD)

1983 WATER QUALITY DATA REGION 4

86

B.O.W./ SITE: MOIRA LAKE
 SAMPLE POINT: COUNTY BRIDGE 1 MILE SOUTH OF MADOC
 STATION TYPE: LAKE

STATION ID: 17-0026-011-01

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 28 42.03 LONG: 077 28 05.71

U T M: 18 0303700.0 4927750.0 4

REGION: 04

DISTANCE: 71.453

*INTERIM		TEST-NAME:	FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PPUT	TURB	ZNUT
SAMPLE DATE	HOUR	SAMPLE NUMBER	WATER TEMP DEG.C	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PH	PHOSPHOR UNF.TOT. MG/L AS P	TURB*ITY FTU	ZINC UNF.TOT. MG/L AS ZN
830110	1130	17010	1.0	0.030	0.003<	8.46	0.014	1.40	0.004
830208	1055	17023	1.0	0.006	0.003<	7.84	0.030	2.70	0.004
830307	1120	17036	2.0		0.003<			1.60	0.009
830411	1130	17049	6.0	0.002<T	0.003<	8.52	0.014	1.03	0.004
830502		17062	12.0	0.004<T	0.007	8.28	0.032	1.00	0.023
830606	1145	17075	17.0	0.002<T	0.003<	8.20	0.019	2.40	0.004
830704	1140	17087	22.0	0.102	0.003	8.31	0.030	0.80	0.014
830802	1315	18000	23.0	0.120	0.003<	8.48	0.023	3.50	0.002
830906	1115	18013	26.0	0.128	0.003<	8.62	0.029	3.80	0.002
831011	1130	18026	14.0	0.060	0.003	8.30	0.043	8.80	0.001
831103	1115	18039	7.0	0.060	0.003<	8.11	0.025	2.90	0.005
831205	1115	18052	3.0						
MAXIMUM			26.0	0.128	0.007	8.62	0.043	8.80	0.023
ARITH MEAN			11.2	0.051<A	0.004	8.31	0.026	2.72	0.007
GEOM MEAN			6.8	0.021<A		8.31	0.024	2.13	0.004
MINIMUM			1.0	0.002	0.003	7.84	0.014	0.80	0.001
STD DEV (GEOM *)			9.2	0.050<A		0.23	0.009	2.27	0.007
# SAMP IN STATISTICS			12	10	3	10	10	11	11
% SAMP (EXCLUDED)					72				

III

1983 WATER QUALITY DATA REGION 4

87

B.O.W./ SITE: MADOC CREEK
 SAMPLE POINT: AT RAILWAY BRIDGE 1 MILE SOUTH OF MADOC
 STATION TYPE: RIVER

STATION ID: 17-0026-012-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 15 37.11 LONG: 077 27 55.33 U T M: 18 0303200.0 4903525.0 4 REGION: 04 DISTANCE: 74.832

*INTERIM		TEST-NAME:	FWSADP	FGPROJ	ASUT	BOD5	CLIDUR	COND25	DO	FWSTRC	FWTEMP	NNHTFR
SAMPLE	DATE	DATE	DEPTH	PROJECT	UNF. TOT.	5 DAY	CHLORIDE	CONDUCT.	DISOLVED	STREAM	WATER	NH3-N
DATE	TIME	TIME	M	SUB-PROJ	MG/L	TOT. DEM.	UNF. REAC	25C	OXYGEN	COND.	TEMP	TOTAL
YYMMDD	LMT	YYMMDD		CODE	AS AS	MG/L	MG/L	UMHO/CM	MG/L		DEG.C	MG/L
						AS O	AS CL-	AT 25 C	AS O			AS N
830110	1120	17009	0.30	0101	0.001<		11.30	497.0	13.00	8	2.0	0.004<T
830208	1040	17022	0.30	0101	0.001<	0.32<T	10.60	419.0	10.00	4	1.0	0.006
830217	1020	15457	0.30	0101	0.001<					8		
830307	1110	17035	0.30	0101	0.001<	0.27<T	8.35	340.0	10.00	8	2.0	0.002<T
830314	1010	15472	0.30	0101	0.001<					8		
830411	1010	15489	0.30	0101	0.001<					3		
	1125	17048	0.30	0101	0.001<	0.61	8.43	338.0	11.00	3	6.0	0.002<T
830502		17061	0.30	0101	0.001	1.88	11.60	391.0	9.00	8	12.0	0.010
830530	1030	15507	0.30	0101	0.001<							
830606	1130	17074	0.30	0101	0.001	0.95		414.0	8.00	8	16.0	0.006
830614	1010	15524		0101	0.001							
830704	1130	17086	0.30	0101	0.002	1.10	15.40	406.0	9.00	8	22.0	0.004<T
830725	1120	15542	0.30	0101	0.004							
830802	1307	17099	0.30	0101	0.003	1.03	25.40	440.0		8	24.0	0.044
830823	1205	15560	0.30	0101	0.003					8		
830906	1105	18012	0.30	0101	0.004	0.01<T	42.70	477.0	7.00	8	26.0	0.044
830913	1005	15578	0.30	0101	0.004					8		
831011	1125	18025	0.30	0101	0.005	0.57	40.16	528.0	11.00	8	13.0	0.014
831021	1035	15591	0.30	0101	0.003					8		
831103	1105	18038	0.30	0101	0.002	0.74	27.62	521.0	11.00	8	6.0	0.018
831118	1030	15609	0.30	0101	0.001							
831205	1105	18051	0.30	0101	0.001	0.78	16.32	507.0	11.00	8	3.0	0.012
831215	1050	15626	0.30	0101	0.001<					8		
		MAXIMUM	0.30		0.005	1.88	42.70	528.0	13.00		26.0	0.044
		ARITH MEAN	0.30		0.002	0.75<A	19.81	439.8	10.00		11.1	0.014<A
		GEOM MEAN				0.49<A	16.77	435.1	9.87		7.0	0.008<A
		MINIMUM	0.30		0.001	0.01	8.35	338.0	7.00		1.0	0.002
		STD DEV (GEOM *)				0.50<A	12.44	66.4	1.67		9.1	0.015<A
		* SAMP IN STATISTICS	22		14	11	11	12	11		12	12
		% SAMP (EXCLUDED)			39							

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

88

B.O.W./ SITE: MADOC CREEK
SAMPLE POINT: AT RAILWAY BRIDGE 1 MILE SOUTH OF MADOC
STATION TYPE: RIVER

STATION ID: 17-0026-012-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: LAKE ONTARIO
TERM STREAM: MOIRA RIVER

STORET CODE: 02
004
1090

LAT: 44 15 37.11 LONG: 077 27 55.33

U T M: 18 0303200.0 4903525.0 4

REGION: 04

DISTANCE: 74.832

*INTERIM TEST-NAME:		PHENOL	PPUT	TURB
		PHENOLS	PHOSPHOR	
SAMPLE		UNF-REAC	UNF.TOT.	
DATE	HOUR	UG/L	MG/L	TURB'ITY
YYMMDD	LMT	PHENOL	AS P	FTU
830110	1120	17009	0.015	2.00
830208	1040	17022	0.021	1.60
830307	1110	17035	0.019	3.40
830411	1125	17048	0.020	1.50
830502	17061	0.2<M	0.034	1.50
830606	1130	17074	0.015	1.50
830704	1130	17086	0.046	2.20
830802	1307	17099	0.031	4.10
830906	1105	18012	0.027	1.40
831011	1125	18025	0.020	2.10
831103	1105	18038	0.023	3.90
831205	1105	18051	0.015	3.10
MAXIMUM		0.2	0.046	4.10
ARITH MEAN		0.2<A	0.024	2.36
GEOM MEAN			0.022	2.18
MINIMUM		0.2	0.015	1.40
STD DEV (GEOM *)			0.009	1.00
# SAMP IN STATISTICS		1	12	12
% SAMP (EXCLUDED)				

III

1983 WATER QUALITY DATA REGION 4

89

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: HIGHWAY 7 1 MILE SOUTH OF DELORO
 STATION TYPE: RIVER FLOW GAUGE FED 02HL005

STATION ID: 17-0026-013-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 29 59.12 LONG: 077 37 05.55

U T M: 18 0291850.0 4930500.0 4

REGION: 04

DISTANCE: 92.696

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ASUT	BOD5	CLIDUR	COND25	DO	FWFLOW	FWSTRC	FWTEMP	
SAMPLE DATE	HOUR	SAMPLE NUMBER	SAMPLE DEPTH	PROJECT SUB-PROJ CODE	ARSENIC UNF. TOT. MG/L AS AS	BOD 5 DAY TOT. DEM. MG/L AS 0	CHLORIDE UNF. REAC MG/L AS CL-	CONDUCT. 25C UMHO/CM AT 25 C	DISOLVED OXYGEN MG/L AS 0	STREAM FLOW M3 /S	STREAM COND.	WATER TEMP DEG.C
830110	1020	17007	0.30	0101	0.014		4.42	230.0	11.00	4.980	8	1.0
830128	1030	15451	0.30	0101	0.018					1.850	4	
830208	0905	17020	0.30	0101	0.013	1.22	5.45	249.0		5.840	4	
830217	1040	15458	0.30	0101	0.017					2.450	8	
830307	1025	17033	0.30	0101	0.017	0.45	5.25	238.0	11.00	6.280	4	2.0
830314	1020	15473	0.30	0101	0.012					7.860	8	
830411	1025	15490	0.30	0101	0.010					15.400	3	
	1040	17046	0.30	0101	0.014	0.60	3.55	172.0	12.00	15.400	8	6.0
830502		17059	0.30	0101	0.022				10.00	10.200	8	12.0
830530	1045	15508	0.30	0101	0.017					7.850		
830606	1050	17072	0.30	0101	0.016	0.78	4.08	196.0	8.00	3.730	8	17.0
830614	1030	15525		0101	0.029					1.690		
830704	1047	17084	0.30	0101	0.141	0.83	6.27	272.0	7.00	0.257	8	26.0
830725	1135	15543	0.30	0101	0.397					0.047		
830802	1110	17097	0.30	0101	0.642	1.50	14.10	308.0		0.216	8	23.0
830823	1215	15561	0.30	0101	0.606					0.035	8	
830906	1010	18010	0.30	0101	0.738	0.01<T	9.99	289.0	8.00	0.047	8	25.0
830913	1020	15579	0.30	0101	0.735					0.045	8	
831011	1045	18023	0.30	0101	0.391	0.71	37.12	398.0	10.00	0.058	8	13.0
831021	1050	15592	0.30	0101	0.211					0.072	8	
831103	1005	18036	0.30	0101	0.119	0.81	11.70	306.0	10.00	0.078	8	6.0
831118	1045	15610	0.30	0101	0.039					0.558		
831205	1025	18049	0.30	0101	0.022	0.89	16.34	267.0	9.00	1.930	4	1.0
831215	1130	15627	0.30	0101	0.022					3.850	8	
		MAXIMUM	0.30		0.738	1.50	37.12	398.0	12.00	15.400		26.0
		ARITH MEAN	0.30		0.178	0.78<A	10.75	265.9	9.60	3.780		12.0
		GEOM MEAN			0.055	0.53<A	8.21	259.7	9.48	0.936		7.2
		MINIMUM	0.30		0.010	0.01	3.55	172.0	7.00	0.035		1.0
		STD DEV (GEOM *)			0.256	0.40<A	9.77	61.2	1.58	4.673		9.6
		# SAMP IN STATISTICS	23		24	10	11	11	10	24		11
		% SAMP (EXCLUDED)										

(CONTD)

1983 WATER QUALITY DATA REGION 4

90

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: HIGHWAY 7 1 MILE SOUTH OF DELORO
 STATION TYPE: RIVER FLOW GAUGE FED 02HL005

STATION ID: 17-0026-013-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 29 59.12 LONG: 077 37 05.55 U T M: 18 0291850.0 4930500.0 4 REGION: 04 DISTANCE: 92.696

*INTERIM TEST-NAME:		NNHTFR	PPUT	TURB	
		NH3-N			
		TOTAL	PHOSPHOR		
SAMPLE		FIL.REAC	UNF.TOT.		
DATE	HR	MG/L	MG/L	TURB'ITY	
YYMMDD	LMT	AS N	AS P	FTU	
830110	1020	17007	0.016	0.013	2.50
830208	0905	17020	0.400	0.035	3.00
830307	1025	17033	0.004<T	0.024	2.80
830411	1040	17046	0.004<T	0.020	1.90
830606	1050	17072	0.006	0.020	2.60
830704	1047	17084	0.036	0.048	2.20
830802	1110	17097	0.084	0.043	3.50
830906	1010	18010	0.050	0.090	2.30
831011	1045	18023	0.032	0.036	3.30
831103	1005	18036	0.044	0.025	1.90
831205	1025	18049	0.016	0.022	3.70
MAXIMUM		0.400	0.090	3.70	
ARITH MEAN		0.063<A	0.034	2.70	
GEOM MEAN		0.025<A	0.030	2.64	
MINIMUM		0.004	0.013	1.90	
STD DEV (GEOM *)		0.114<A	0.021	0.62	
# SAMP IN STATISTICS		11	11	11	
% SAMP (EXCLUDED)					

III

1983 WATER QUALITY DATA REGION 4

91

B.O.W./ SITE: MOIRA RIVER
 SAMPLE POINT: DOWNSTREAM FROM VILLAGE OF MALONE
 STATION TYPE: RIVER

STATION ID: 17-0026-019-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: MOIRA RIVER

STORET CODE: 02
 004
 1090

LAT: 44 33 21.05 LONG: 077 36 22.48

U T M: 18 0293000.0 4936700.0 4

REGION: 04

DISTANCE: 100.742

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ASUT	DO	FWSTRC	FWTEMP
SAMPLE DATE	HOUR	SAMPLE	SAMPLE	PROJECT	UNF.TOT.	DISOLVED	WATER
YYMMDD	LMT	NUMBER	DEPTH	SUB-PROJ	MG/L	OXYGEN	TEMP
			M	CODE	AS AS	MG/L	DEG.C
						AS O	
						STREAM	
						COND.	
830110	1055	17008	0.30	0101	0.001<	12.00	1.0
830208	1005	17021	0.30	0101	0.001<	11.00	1.0
830217	1100	15459	0.30	0101	0.001<	8	
830307	1040	17034	0.30	0101	0.001<	11.00	2.0
830314		15474	0.30	0101	0.001<	8	
830411	1040	15491	0.30	0101	0.001<	3	
	1055	17047	0.30	0101	0.001<	11.00	6.0
830502		17060	0.30	0101	0.001<	9.00	12.0
830530	1100	15509	0.30	0101	0.001<		
830606	1105	17073	0.30	0101	0.001<	9.00	16.0
830614	1045	15526	0.30	0101	0.001		
830704	1105	17085	0.30	0101	0.003	7.00	24.0
830725	1200	15544	0.30	0101	0.005		
830802	1125	17098	0.30	0101	0.005	9	23.0
830823	1240	15562	0.30	0101	0.003	8	
830906	1025	18011	0.30	0101	0.003	7.00	26.0
830913	1040	15580	0.30	0101	0.002	8	
831011	1055	18024		0101	0.002		
831021	1110	15593	0.30	0101	0.001	8	
831103	1020	18037	0.30	0101	0.001	11.00	7.0
831118	1100	15611	0.30	0101	0.001<		
831205	1040	18050	0.30	0101	0.001<	12.00	1.0
831215	1145	15628	0.30	0101	0.001<	8	
		MAXIMUM	0.30		0.005	12.00	26.0
		ARITH MEAN	0.30		0.003	10.00	10.8
		GEOM MEAN				9.82	5.8
		MINIMUM	0.30		0.001	7.00	1.0
		STD DEV (GEOM *)				1.89	9.9
		# SAMP IN STATISTICS	22		10	10	11
		% SAMP (EXCLUDED)			56		

1983 WATER QUALITY DATA REGION 4

92

B.O.W./ SITE: SALMON RIVER
 SAMPLE POINT: AT OLD HIGHWAY 2, SHANNONVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02HM003

STATION ID: 17-0031-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: SALMON RIVER

STORET CODE: 02
 004
 1000

LAT: 44 11 46.61 LONG: 077 13 47.36

U T M: 18 0321810.0 4895875.0 4

REGION: 04

DISTANCE: 2.897

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALK	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	CONDUCT.	COPPER	DISOLVED	IRON	STREAM		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	25C	UNF. TOT.	OXYGEN	UNF. TOT.	FLOW		WATER
YYMMDD	LMT	M	CODE	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	COND.	TEMP
			AS CAC03		AT 25 C	AS CU	AS O	AS FE	/S		DEG.C
830106	1020	17754	0101	92.3	208.0	0.003	15.00	0.135	20.800	8	1.0
830207	1050	17759	0101	91.9	205.0	0.010	15.00	0.175	17.800	8	1.0
830301	1430	17762	0101	106.8	237.0	0.002	16.00	0.135	11.600	8	0.5
830405	1130	17769	0101	113.4	245.0		12.00	0.130	31.300	8	3.0
830502	1030	17774	0101	104.3	223.0	0.001<	10.00	0.190	28.900	8	12.0
830609	1100	17779	0101	94.2	194.0	0.005	11.00	0.240	10.200	8	15.5
830718	1545	17784	0101	110.3	229.0	0.015	8.00	0.180	0.758	8	26.0
830808	1545	17789	0101	118.3	253.0	0.003	9.00	0.200	0.707	8	27.0
830906	1320	17794	0101	115.1	264.0	0.010	9.00	0.125	0.415	8	24.5
831003	1130	17799	0101	118.1	269.0	0.001	10.00	0.135	0.367	8	17.0
831101	1045	17804	0101	175.1	408.0	0.002	14.00	0.105	2.050	8	6.0
831205		17809	0101	112.5	260.0	0.003	15.00	0.115	14.800	8	1.0
		MAXIMUM	0.30	175.1	408.0	0.015	16.00	0.240	31.300		27.0
		ARITH MEAN	0.30	112.7	249.6	0.005	12.00	0.155	11.641		11.2
		GEOM MEAN		111.1	245.0		11.68	0.151	4.634		5.3
		MINIMUM	0.30	91.9	194.0	0.001	8.00	0.105	0.367		0.5
		STD DEV (GEOM #)		21.9	55.5		2.86	0.041	11.287		10.5
		# SAMP IN STATISTICS	12	12	12	10	12	12	12		12
		% SAMP (EXCLUDED)				9					
*INTERIM TEST-NAME:		NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT		
SAMPLE		NH3-N	LEAD		PHENOLS	PHOSPHOR	RESIDUE	TURB'ITY	ZINC		
DATE	HOUR	TOTAL	UNF. TOT.		UNF-REAC	UNF. TOT.	PARTIC.		UNF. TOT.		
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	MG/L	FTU	MG/L		
		AS N	AS PB		PHENOL	AS P			AS ZN		
830106	1020	17754	0.008	0.003<	8.05	0.6<T	0.009	1.830	0.003		
830207	1050	17759	0.004<T	0.003<	7.89	0.2<W	0.012	2.180	0.004		
830301	1430	17762	0.038	0.004	8.23	0.2<W	0.013	2.160	0.003		
830405	1130	17769	0.004<T		8.07	0.6<T	0.010	3.120	1.70		
830502	1030	17774	0.004<T	0.003<	8.13	0.2<W	0.024	4.660	0.002		
830609	1100	17779	0.008	0.003<	8.11	0.6<T	0.019	4.710	0.002		
830718	1545	17784	0.012	0.057	8.05	-0.2<T	0.034	2.820	0.014		
830808	1545	17789	0.040	0.004	8.03	0.6<T	0.044	17.700	0.001<		
830906	1320	17794	0.034	0.005	8.35	0.2<W	0.018	3.460	0.029		
831003	1130	17799	0.022	0.003<	8.04	0.2<W	0.021	1.970	0.001		
831101	1045	17804	0.016	0.003<	8.12	0.2<W	0.017	0.820<T	0.003		
831205		17809	0.010	0.004	7.92	-0.2<T	0.017	1.320	0.003		

(CONT'D)

1983 WATER QUALITY DATA REGION 4

93

B.O.W./ SITE: SALMON RIVER
 SAMPLE POINT: AT OLD HIGHWAY 2, SHANNONVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02HM003

STATION ID: 17-0031-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: SALMON RIVER

STORET CODE: 02
 004
 1000

LAT: 44 11 46.61 LONG: 077 13 47.36 U T M: 18 0321810.0 4895875.0 4 REGION: 04 DISTANCE: 2.897

*INTERIM TEST-NAME:		NNHTR NH3-N TOTAL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	RSP RESIDUE	TURB TURB'ITY	ZNUT ZINC	
SAMPLE DATE	HR	FIL.REAC MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	PARTIC. MG/L	FTU	UNF.TOT. MG/L	
YYMMDD	LMT	AS N	AS PB	PH	PHENOL	AS P			AS ZN	
		MAXIMUM	0.040	0.057	8.35	0.6	0.044	17.700	3.80	0.029
		ARITH MEAN	0.017<A	0.015	8.08	0.3<A	0.020	3.896<A	2.29	0.006
		GEOM MEAN	0.012<A		8.08		0.018	2.785<A	2.14	
		MINIMUM	0.004	0.004	7.89	-0.2	0.009	0.820	1.30	0.001
		STD DEV (GEOM *)	0.014<A		0.12		0.010	4.510<A	0.90	
		# SAMP IN STATISTICS	12	5	12	12	12	12	12	10
		% SAMP (EXCLUDED)		54						9

1983 WATER QUALITY DATA REGION 4

94

B.O.W./ SITE: SALMON RIVER
 SAMPLE POINT: AT BRIDGE IN MILLTOWN
 STATION TYPE: RIVER FLOW GAUGE FED. 02HM003

STATION ID: 17-0031-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: SALMON RIVER

STORET CODE: 02
 004
 1000

LAT: 44 12 26.10 LONG: 077 12 34.95 U T M: 18 0323450.0 4897050.0 4 REGION: 04 DISTANCE: 4.989

*=INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW	
YYMMDD	LMT	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	STREAM
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	COND.
830106	1025	17753	0101	91.8	0.001<	207.0	0.003	14.00	0.120	20.800	8
830207	1130	17758	0101	91.1	0.001<	203.0	0.016	15.00	0.175	17.800	8
830301	1450	17763	0101	108.0	0.001<	236.0	0.001	12.00	0.120	11.600	8
830405	1220	17768	0101	113.1		244.0		12.00	0.125	31.300	8
830502	1045	17773	0101	103.5	0.001<	220.0	0.001<	10.00	0.195	28.900	8
830609	1115	17778	0101	94.2	0.001<	194.0	0.016	11.00	0.220	10.200	8
830718	1530	17783	0101	109.5	0.001<	229.0	0.003	8.00	0.235	0.758	8
830808	1525	17788	0101	114.3	0.001	242.0	0.004	7.00	0.265	0.707	8
830906	1300	17793	0101	112.0	0.001<	255.0	0.002	8.00	0.130	0.415	8
831003	1110	17798	0101	118.1	0.001<	264.0	0.002	9.00	0.190	0.367	8
831101	1100	17803	0101	175.2	0.001<	405.0	0.002	14.00	0.090	2.050	8
831205	1150	17808	0101					15.00		14.800	8
		MAXIMUM	0.30	175.2	0.001	405.0	0.016	15.00	0.265	31.300	
		ARITH MEAN	0.30	111.9	0.001	245.4	0.005	11.25	0.170	11.641	
		GEOM MEAN		110.1		240.5		10.90	0.161	4.634	
		MINIMUM	0.30	91.1	0.001	194.0	0.001	7.00	0.090	0.367	
		STD DEV (GEOM %)		23.0		57.3		2.86	0.056	11.287	
		% SAMP IN STATISTICS	12	11	1	11	9	12	11	12	
		% SAMP (EXCLUDED)			90		10				

*=INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE		WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE	HOUR	TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
YYMMDD	LMT	DEG.C	MG/L	MG/L	PH	UG/L	MG/L	TURB'ITY	MG/L
			AS NI	AS PB		PHENOL	AS P	FTU	AS ZN
830106	1025	17753	1.0	0.001	0.003<	8.18	0.4<T	0.007	0.002
830207	1130	17758	1.0	0.002	0.080	8.06	0.2<W	0.013	0.009
830301	1450	17763	2.0	0.002<	0.003<	8.23	0.2<W	0.009	0.002
830405	1220	17768	3.0			8.26	0.2<T	0.023	
830502	1045	17773	13.0	0.002<	0.003<	8.27	-0.2<T	0.017	0.001
830609	1115	17778	15.5	0.002<	0.003<	8.10	0.4<T	0.021	0.002
830718	1530	17783	26.0	0.002<	0.021	8.01	-0.2<T	0.056	0.001
830808	1525	17788	26.0	0.002	0.006	8.07	0.6<T	0.040	0.001
830906	1300	17793	24.0	0.002<	0.003<	8.21	0.2<W	0.018	0.001<
831003	1110	17798	16.5	0.002<	0.006	8.17	0.2<W	0.018	0.003
831101	1100	17803	5.0	0.002<	0.003<	8.15	0.2<W	0.016	0.004
831205	1150	17808	1.0						

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

95

B.O.W./ SITE: SALMON RIVER
 SAMPLE POINT: AT BRIDGE IN MILLTOWN
 STATION TYPE: RIVER FLOW GAUGE FED. 02HM003

STATION ID: 17-0031-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: SALMON RIVER

STORET CODE: 02
 004
 1000

LAT: 44 12 26.10 LONG: 077 12 34.95 U T M: 18 0323450.0 4897050.0 4 REGION: 04 DISTANCE: 4.989

*INTERIM TEST-NAME:			FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HR	SAMPLE NUMBER	WATER TEMP DEG.C	UNF.TOT. MG/L AS NI	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF.TOT. MG/L AS P	TURB*ITY FTU	UNF.TOT. MG/L AS ZN
YYMMDD	LMT									
		MAXIMUM	26.0	0.002	0.080	8.27	0.6	0.056	6.20	0.009
		ARITH MEAN	11.2	0.002	0.028	8.16	0.2<A	0.022	2.50	0.003
		GEOM MEAN	5.9			8.16		0.018	2.15	
		MINIMUM	1.0	0.001	0.006	8.01	-0.2	0.007	1.00	0.001
		STD DEV (GEOM *)	10.2			0.09		0.014	1.51	
		# SAMP IN STATISTICS	12	3	4	11	11	11	11	9
		% SAMP (EXCLUDED)		70	60					10

1983 WATER QUALITY DATA REGION 4

96

B.O.W./ SITE: NAPANEE RIVER
 SAMPLE POINT: DOWNSTREAM FROM NAPANEE
 STATION TYPE: RIVER FLOW GAUGE FED 02HM001

STATION ID: 17-0035-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: NAPANEE RIVER

STORET CODE: 02
 004
 0870

LAT: 44 13 00.27 LONG: 076 58 26.77 U T M: 18 0342300.0 4897625.0 4 REGION: 04 DISTANCE: 5.633

*INTERIM TEST-NAME:			FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FWSTRC	FWTEMP
						BOD 5 DAY TOT. DEM.	CHLORIDE UNF. REAC	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF. TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O		WATER TEMP DEG.C
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CACO3	MG/L AS O	MG/L AS CL-				STREAM COND.	
830106	1135	17752	0.30	0101	99.7		5.17	234.0	0.003	14.00	4	
830301	1530	17764	0.30	0101	115.1	1.00	6.41	260.0	0.002	15.00	4	1.5
830405	1310	17767	0.30	0101	122.7		7.27	276.0		12.00	8	3.0
830502	1115	17772	0.30	0101	122.7	1.61	7.09	275.0	0.001<	10.00		13.0
830718	1450	17782	0.30	0101	105.0	3.32	11.60	258.0	0.003	11.00	5	28.0
830809	0900	17787	0.30	0101	91.6	1.46	11.00	226.0	0.005	7.00	5	24.0
830906	1130	17792	0.30	0101	86.9	0.82	10.60	229.0	0.003	9.00	8	24.0
831003	1210	17797	0.30	0101	80.7	1.30	11.39	213.0	0.002	12.00	5	17.5
831101	1145	17802	0.30	0101	129.5		10.67	307.0	0.002	12.00	8	7.0
831205	1150	17807	0.30	0101	98.1	0.80	7.18	277.0	0.004	15.00	8	
MAXIMUM			0.30		129.5	3.32	11.60	307.0	0.005	15.00		28.0
ARITH MEAN			0.30		105.2	1.47	8.84	255.5	0.003	11.70		14.7
GEOM MEAN					104.0	1.31	8.52	254.0		11.42		10.2
MINIMUM			0.30		80.7	0.80	5.17	213.0	0.002	7.00		1.5
STD DEV (GEOM *)					16.7	0.87	2.42	29.4		2.58		10.2
# SAMP IN STATISTICS			10		10	7	10	10	8	10		8
% SAMP (EXCLUDED)									11			
*INTERIM TEST-NAME:			NNHTFR NH3-N TOTAL FIL. REAC	PBUT LEAD UNF. TOT.	PH	PHNOL UNF-REAC	PPUT PHOSPHOR UNF. TOT.	TURB	ZNUT			
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	MG/L AS N	MG/L AS PB	PH	UG/L PHENOL	MG/L AS P	TURB'ITY FTU	ZINC UNF. TOT. MG/L AS ZN			
830106	1135	17752	0.004<T	0.003<	8.17		0.039	2.50	0.003			
830301	1530	17764	0.126	0.003<	8.26		0.035	1.40	0.004			
830405	1310	17767	0.004<T		8.16	0.4<T	0.015	1.90				
830502	1115	17772	0.012	0.003<	8.06		0.073	8.30	0.001<			
830718	1450	17782	0.006<T	0.010	7.49		0.265	4.10	0.001			
830809	0900	17787	0.140	0.003	7.86		0.185	16.90	0.003			
830906	1130	17792	0.178	0.003	8.00		0.137	6.30	0.002			
831003	1210	17797	0.126	0.003<	7.83		0.069	4.30	0.004			
831101	1145	17802	0.092	0.006	7.83		0.066	2.40	0.005			
831205	1150	17807	0.038	0.003<	7.80		0.024	1.10	0.004			

(CONTD)

III

1983 WATER QUALITY DATA REGION 4

97

B.O.W./ SITE: NAPANEE RIVER
 SAMPLE POINT: DOWNSTREAM FROM NAPANEE
 STATION TYPE: RIVER FLOW GAUGE FED 02HM001

STATION ID: 17-0035-001-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: NAPANEE RIVER

STORET CODE: 02
 004
 0870

LAT: 44 13 00.27 LONG: 076 58 26.77 U T M: 18 0342300.0 4897625.0 4 REGION: 04 DISTANCE: 5.633

*INTERIM TEST-NAME:		NNHTFR	PBUT	PH	PHNOL	PPUT	TURB	ZNUT	
		NH3-N							
		TOTAL	LEAD		PHENOLS	PHOSPHOR		ZINC	
		FIL.REAC	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.	
SAMPLE		MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L	
DATE	HOUR	AS N	AS PB	PH	PHENOL	AS P	FTU	AS ZN	
YYMMDD	LMT	NUMBER							
		MAXIMUM	0.178	0.010	8.26	0.4	0.265	16.90	0.005
		ARITH MEAN	0.073<A	0.005	7.95	0.4<A	0.091	4.92	0.003
		GEOM MEAN	0.033<A		7.94		0.064	3.50	
		MINIMUM	0.004	0.003	7.49	0.4	0.015	1.10	0.001
		STD DEV (GEOM *)	0.067<A		0.23		0.081	4.79	
		# SAMP IN STATISTICS	10	4	10	1	10	10	8
		% SAMP (EXCLUDED)		55					11

1983 WATER QUALITY DATA REGION 4

98

B.O.W./ SITE: NAPANEE RIVER
 SAMPLE POINT: MINK BRIDGE UPSTREAM FROM HIGHWAY 401
 STATION TYPE: RIVER FLOW GAUGE FED 02HM001

STATION ID: 17-0035-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: NAPANEE RIVER

STORET CODE: 02
 004
 0870

LAT: 44 16 39.43 LONG: 076 55 42.23

U T M: 18 0346110.0 4904300.0 4

REGION: 04

DISTANCE: 14.806

*=INTERIM	TEST-NAME:	FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FWSTRC	FWTEMP	PBUT	PH	
SAMPLE				ALK	CONDUCT.	COPPER	DISOLVED			LEAD		
DATE	HR	SAMPLE	SAMPLE	PROJECT	25C	UNF.TOT.	OXYGEN	STREAM	WATER	UNF.TOT.		
YYMMDD	LMT	NUMBER	DEPTH	SUB-PROJ	UMHO/CM	MG/L	MG/L	COND.	TEMP	MG/L	PH	
			M	CODE	AT 25 C	AS CU	AS O		DEG.C	AS PB		
830106	0945	17751	0.30	0101	99.1	230.0	0.006	14.00	8	1.0	0.003<	7.80
830207	1000	17756	0.30	0101	88.3	198.0	0.016	15.00	8	1.0	0.006	7.57
830301	1400	17761	0.30	0101	112.2	247.0	0.019	16.00	8	1.0	0.005	8.17
830405	1010	17766	0.30	0101	118.2	254.0		13.00	8	2.0		8.28
830502	0940	17771	0.30	0101	115.7	250.0	0.002	10.00	8	12.5	0.003<	7.94
830609	0950	17776	0.30	0101	108.1	224.0	0.004	9.00	8	14.0	0.003<	7.87
830718	1400	17781	0.30	0101	86.0	192.0	0.020	5.00	8	26.0	0.061	7.59
830808	1400	17786	0.30	0101	67.3	157.0	0.003	6.00	8	25.0	0.003<	7.42
830906	1100	17791	0.30	0101	74.8	174.0	0.001<	5.00	8	23.0	0.003<	7.32
831003	1030	17796	0.30	0101	70.7	163.0	0.002	6.00	8	17.0	0.003<	7.28
831101	0955	17801	0.30	0101	118.6	273.0	0.001	11.00	8	5.0	0.003<	7.54
831205	1030	17806	0.30	0101	93.5	260.0	0.003	14.00	8	1.0	0.005	7.99
	MAXIMUM	0.30			118.6	273.0	0.020	16.00		26.0	0.061	8.28
	ARITH MEAN	0.30			96.0	218.5	0.008	10.33		10.7	0.019	7.73
	GEOM MEAN				94.3	214.9		9.51		5.3		7.72
	MINIMUM	0.30			67.3	157.0	0.001	5.00		1.0	0.005	7.28
	STD DEV (GEOM *)				18.8	40.3		4.10		10.1		0.33
	# SAMP IN STATISTICS	12			12	12	10	12		12		12
	% SAMP (EXCLUDED)						9			63		

*=INTERIM	TEST-NAME:	PHNOL	RSP	ZNUT	
SAMPLE		PHENOLS	RESIDUE	ZINC	
DATE	HR	UNF-REAC	PARTIC.	UNF.TOT.	
YYMMDD	LMT	UG/L	MG/L	MG/L	
		PHENOL		AS ZN	
830106	0945	17751	1.0	2.490	0.005
830207	1000	17756	0.2<T	3.480	0.008
830301	1400	17761	0.2<T	3.010	0.027
830405	1010	17766	0.4<T	3.140	
830502	0940	17771	0.2<W	6.270	0.010
830609	0950	17776	0.6<T	3.060	0.003
830718	1400	17781	-0.2<T	2.120	0.080
830808	1400	17786	0.2<T	12.100	0.005
830906	1100	17791	0.2<W	3.030	0.001
831003	1030	17796	1.0	1.130	0.005
831101	0955	17801	1.6	2.200	0.004
831205	1030	17806	0.2<W	0.880<T	0.004

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

99

B.O.W./ SITE: NAPANEE RIVER
 SAMPLE POINT: MINK BRIDGE UPSTREAM FROM HIGHWAY 401
 STATION TYPE: RIVER FLOW GAUGE FED 02HM001

STATION ID: 17-0035-002-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: NAPANEE RIVER

STORET CODE: 02
 004
 0870

LAT: 44 16 39.43 LONG: 076 55 42.23 U T M: 18 0346110.0 4904300.0 4 REGION: 04 DISTANCE: 14.806

**INTERIM TEST-NAME:		PHNOL	RSP	ZNUT
		PHENOLS		ZINC
SAMPLE		UNF-REAC	RESIDUE	UNF.TOT.
DATE	HR	UG/L	PARTIC.	MG/L
YYMMDD	LMT	PHENOL	MG/L	AS ZN
MAXIMUM		1.6	12.100	0.080
ARITH MEAN		0.5<A	3.576<A	0.014
GEOM MEAN			2.833<A	0.007
MINIMUM		-0.2	0.880	0.001
STD DEV (GEOM *)			3.007<A	0.023
# SAMP IN STATISTICS		12	12	11
% SAMP (EXCLUDED)				

1983 WATER QUALITY DATA REGION 4

100

B.O.W./ SITE: NAPANEE RIVER
 SAMPLE POINT: AT BRIDGE IN TOWN OF NEWMURGH
 STATION TYPE: RIVER

STATION ID: 17-0035-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: NAPANEE RIVER

STORET CODE: 02
 004
 0870

LAT: 44 19 24.66 LONG: 076 52 31.70 U T M: 18 0350450.0 4909300.0 4 REGION: 04 DISTANCE: 22.530

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FMSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
			AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C	
830106	0920	17750	0.30	0101	96.3	0.001<	224.0	0.003	15.00	0.150	8
830207	0935	17755	0.30	0101	83.4	0.001<	187.0	0.003	15.00	0.205	8
830301	1341	17760	0.30	0101	106.0	0.001<	246.0	0.006	15.00	0.175	8
830405	0950	17765	0.30	0101	111.3	0.001<	240.0	0.008	14.00	0.095	8
830502	0920	17770	0.30	0101	111.6	0.001<	240.0	0.001	10.00	0.200	8
830609	0930	17775	0.30	0101	103.2	0.001<	215.0	0.007	10.00	0.195	8
830718	1325	17780	0.30	0101	75.0	0.001<	161.0	0.002	8.00	0.130	8
830808	1335	17785	0.30	0101	59.4	0.001<	133.0	0.028	8.00	0.145	8
830906	1020	17790	0.30	0101	65.3	0.001<	142.0	0.002	10.00	0.110	8
831003	1005	17795	0.30	0101	61.2	0.001<	134.0	0.001	11.00	0.160	8
831101	0940	17800	0.30	0101	99.6	0.001<	224.0	0.001<	14.00	0.160	8
831205	1015	17805	0.30	0101	86.7	0.001<	246.0	0.004	16.00	0.130	8
MAXIMUM		0.30			111.6		246.0	0.028	16.00	0.205	26.0
ARITH MEAN		0.30			88.2		199.3	0.006	12.17	0.155	10.7
GEOM MEAN					86.2		194.1		11.82	0.151	5.7
MINIMUM		0.30			59.4		133.0	0.001	8.00	0.095	1.0
STD DEV (GEOM *)					19.3		45.4		2.95	0.035	9.8
# SAMP IN STATISTICS		12			12		12	10	12	12	12
% SAMP (EXCLUDED)								9			

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE	HOUR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	TURB'ITY	MG/L
		AS NI	AS PB		PHENOL	AS P	FTU	AS ZN
830106	0920	17750	0.001<	0.003<	8.03	0.6<T	0.013	0.74
830207	0935	17755			7.71	0.2<T	0.017	3.10
830301	1341	17760	0.021	0.003<	8.32	0.2<W	0.015	2.30
830405	0950	17765	0.001	0.003<	8.03	0.8	0.013	0.90
830502	0920	17770	0.002<	0.003<	8.21	0.2<W	0.033	2.00
830609	0930	17775	0.002<	0.003<	8.00	0.2<T	0.027	1.10
830718	1325	17780	0.002<	0.009	7.70	-0.2<T	0.037	1.10
830808	1335	17785	0.052	0.041	8.50	0.4<T	0.039	1.50
830906	1020	17790	0.002<	0.020	8.20	0.4<T	0.040	1.10
831003	1005	17795	0.002<	0.004	7.99	0.2<T	0.032	1.40
831101	0940	17800	0.002<	0.003<	7.92	0.2<T	0.023	2.30
831205	1015	17805	0.002	0.003	7.74	0.2<W	0.023	1.70

(CONTD)

III

1983 WATER QUALITY DATA REGION 4

101

B.O.M./ SITE: NAPANEE RIVER
 SAMPLE POINT: AT BRIDGE IN TOWN OF NEWBURGH
 STATION TYPE: RIVER

STATION ID: 17-0035-004-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: LAKE ONTARIO
 TERM STREAM: NAPANEE RIVER

STORET CODE: 02
 004
 0870

LAT: 44 19 24.66 LONG: 076 52 31.70 U T M: 18 0350450.0 4909300.0 4 REGION: 04 DISTANCE: 22.530

*-INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB TURBIDITY	ZNUT ZINC
SAMPLE DATE	UNF.TOT. MG/L	UNF.TOT. MG/L	UNF.TOT. MG/L	UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L	AS ZN
YYMMDD LMT	AS NI	AS PB	PH	PHENOL	AS P			
MAXIMUM	0.052	0.041	8.50	0.8	0.040	3.10	0.510	
ARITH MEAN	0.019	0.015	8.03	0.3<A	0.026	1.60	0.054	
GEOM MEAN			8.03		0.024	1.47	0.009	
MINIMUM	0.001	0.003	7.70	-0.2	0.013	0.74	0.002	
STD DEV (GEOM *)			0.25		0.010	0.70	0.151	
# SAMP IN STATISTICS	4	5	12	12	12	12	11	
% SAMP (EXCLUDED)	63	54						

1983 WATER QUALITY DATA REGION 4

102

B.O.W./ SITE: OTTAWA RIVER
 SAMPLE POINT: CHANNEL 1 AND 2 HAWKESBURY
 STATION TYPE: RIVER COMPOSITE

STATION ID: 18-0000-051-82

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER

STORET CODE: 02
 006

LAT: 45 36 47.33 LONG: 074 36 19.11

U T M: 18 0530775.0 5050925.0 4

REGION: 04

DISTANCE: 109.432

*=INTERIM	TEST-NAME:	FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FCMF FECAL COLIFORM	FWTEMP	PBUT	PH
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CACO3	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF. TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	WATER TEMP DEG.C	LEAD UNF. TOT. MG/L AS PB	PH
830405		15338		0101	43.9	130.0	0.280			0.030<	7.54
830511	1325	15340	0.30	0101	38.3	107.9	0.001<	10.00	10.0	0.003<	7.42
830610	1100	15342		0101	23.1	75.0	0.010<			0.030<	7.22
830817	1315	15344	0.30	0101	23.1	68.5	0.020	5.00	23.0	0.030<	8.71
830912	1245	15346	0.30	0101	20.9	68.3		6.10	23.0		7.06
831017	1120	15350	0.30	0101	39.7	139.0	0.007	15.00	5.0	0.007	7.33
831018	1300	15348	0.30	0101	22.0	79.2	0.006	7.40	13.0	0.003<	7.23
	MAXIMUM	0.30			43.9	139.0	0.280	15.00	23.0	0.007	8.71
	ARITH MEAN	0.30			30.1	95.4	0.078	8.70	14.8	0.007	7.50
	GEOM MEAN				28.8	91.6		8.05	12.8		7.49
	MINIMUM	0.30			20.9	68.3	0.006	5.00	5.0	0.007	7.06
	STD DEV (GEOM *)				10.0	30.0		3.98	8.0		0.55
	# SAMP IN STATISTICS	5			7	7	4	5	5	1	7
	% SAMP (EXCLUDED)						33			83	
*=INTERIM	TEST-NAME:	PHNOL	RSP	TCHF COLIFORM	TCMFBK COLIFORM	ZNUT					
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	PHENOLS UNF-REAC UG/L PHENOL	RESIDUE PARTIC. MG/L	TOTAL HF CNT /100ML	TOTAL HF BCKGRD CNT /100ML	ZINC UNF. TOT. MG/L AS ZN				
830405		15338	1.2	24.200			0.066				
830511	1325	15340	0.2<M	16.200			0.001<				
830610	1100	15342	0.2<T	6.890			0.010<				
830817	1315	15344	0.4<T	2.020	15000>	15000>	0.010<				
830912	1245	15346	0.2<T	3.220							
831017	1120	15350	0.4<T	9.210			0.010				
831018	1300	15348	0.6<T	2.850			0.001<				
	MAXIMUM	1.2	24.200				0.066				
	ARITH MEAN	0.5<A	9.227				0.038				
	GEOM MEAN	0.4<A	6.444								
	MINIMUM	0.2	2.020				0.010				
	STD DEV (GEOM *)	0.4<A	8.236								
	# SAMP IN STATISTICS	7	7				2				
	% SAMP (EXCLUDED)						66				

1983 WATER QUALITY DATA REGION 4

103

B.O.W./ SITE: OTTAMA RIVER
 SAMPLE POINT: PERLEY BRIDGE, HAMKESBURY MAIN CHANNEL
 STATION TYPE: RIVER COMPOSITE

STATION ID: 18-0000-078-83

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAMA RIVER

STORET CODE: 02
 006

LAT: 45 37 05.89 LONG: 074 35 58.21

U T M: 18 0531225.0 5051500.0 4

REGION: 04

DISTANCE: 109.432

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	COND25	CUUT	DO	FCMF FECAL COLIFORM	FNTMP	PBUT	PH
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF.TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	WATER TEMP DEG.C	LEAD UNF.TOT. MG/L AS PB	PH
830405		15339		0101	27.4	102.0	0.069			0.030<	7.11
830511	1300	15341	0.30	0101	32.8	93.8	0.001<	11.30	10.0	0.003<	7.19
830610	1130	15343		0101	18.2	63.2	0.010<			0.030<	7.14
830817	1300	15345	0.30	0101	20.9	66.6	0.030	4.30	23.0	0.030<	8.70
830912	1130	15347	0.30	0101	21.3	67.2		6.20	23.0		6.90
831017	1140	15351	0.30	0101	32.9	109.1	0.004	15.00	5.0	0.003	7.44
831018	1315	15349	0.30	0101	21.3	75.4	0.006	7.40	13.0	0.003<	7.24
MAXIMUM		0.30			32.9	109.1	0.069	15.00	20	0.003	8.70
ARITH MEAN		0.30			25.0	82.5	0.027	8.84	20	0.003	7.39
GEOM MEAN					24.4	80.7		8.03	12.8		7.37
MINIMUM		0.30			18.2	63.2	0.004	4.30	20	0.003	6.90
STD DEV (GEOM #)					6.0	18.8		4.29	8.0		0.60
# SAMP IN STATISTICS		5			7	7	4	5	1	5	7
% SAMP (EXCLUDED)							33			83	
*INTERIM TEST-NAME:		PHNOL	RSP	TCMF COLIFORM TOTAL	TCMFBK COLIFORM TOTAL MF	ZNUT					
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	PHENOLS UNF-REAC UG/L PHENOL	RESIDUE PARTIC. MG/L	MF CNT /100ML	BCKGRD CNT /100ML	ZINC UNF.TOT. MG/L AS ZN				
830405		15339	1.4	9.350			0.024				
830511	1300	15341	0.2<W				0.001<				
830610	1130	15343	0.6<T	6.320			0.010<				
830817	1300	15345	0.2<W	3.980	1000<=>	106000	0.010<				
830912	1130	15347	0.2<W	3.520							
831017	1140	15351	0.2<T	5.560			0.006				
831018	1315	15349	0.6<T	2.37			0.003				
MAXIMUM			1.4	9.350	1000	106000	0.024				
ARITH MEAN			0.5<A	5.18	1000	106000	0.011				
GEOM MEAN			0.4<A	4.71							
MINIMUM			0.2	2.37	1000	106000	0.003				
STD DEV (GEOM #)			0.4<A	2.49							
# SAMP IN STATISTICS			7	6	1	1	3				
% SAMP (EXCLUDED)							50				

1983 WATER QUALITY DATA REGION 4

104

B.O.W./ SITE: OTTAMA RIVER
 SAMPLE POINT: AT CHATS FALLS 900' FROM P/Q SHORE
 STATION TYPE: RIVER FLOW GAUGE FED 02KF009

STATION ID: 18-0000-170-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAMA RIVER

STORET CODE: 02
 006

LAT: 45 28 26.47 LONG: 076 14 52.81 U T M: 18 0402450.0 5036150.0 4 REGION: 04 DISTANCE: 263.281

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
				ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
SAMPLE	DATE	SAMPLE	PROJECT	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW	COND.
YYMMDD	HOUR	NUMBER	SUB-PROJ	MG/L	MG/L	UMHQ/CM	MG/L	MG/L	MG/L	M3	
LMT			CODE	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	
830207	1300	16421	0101	37.6		108.0	0.012	13.00	0.195	1450.00	8
830316	1030	16434	0101	38.1	0.001<	110.0	0.001	13.00	0.285	1480.00	8
830330	1030	16447	0101	36.5	0.001<	100.0	0.014	10.00	0.245	1490.00	8
830530	1445	16460	0101	29.6	0.001<	65.3	0.003	12.00	0.200	2720.00	8
830622	1430	16473	0101	19.8	0.001<	68.0	0.029	11.00	0.365	1330.00	8
830725	1720	16486	0101	20.1	0.001<	66.9	0.018	8.00	0.190	547.000	8
830809	0830	16499	0101	21.9	0.001	70.1	0.018	9.00	0.165	488.000	8
830920	1600	16512	0101	23.0	0.001	73.3	0.002	10.00	0.230	382.000	8
831017	1645	16525	0101	22.1	0.001	74.9	0.003	14.00	0.185	760.000	8
831122	0950	16538	0101	33.9	0.001<	95.7	0.002	14.00	0.240	945.000	8
MAXIMUM		0.30		38.1	0.001	110.0	0.029	14.00	0.365	2720.00	
ARITH MEAN		0.30		28.3	0.001	83.2	0.010	11.40	0.230	1159.20	
GEOM MEAN				27.3		81.5	0.006	11.22	0.224	983.547	
MINIMUM		0.30		19.8	0.001	65.3	0.001	8.00	0.165	382.000	
STD DEV (GEOM *)				7.7		18.0	0.010	2.12	0.059	698.948	
# SAMP IN STATISTICS		10		10		3	10	10	10	10	
% SAMP (EXCLUDED)						66					

*INTERIM TEST-NAME:		FWTEMP	NIUT	NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
			NICKEL	NH3-N	LEAD		PHENOLS	PHOSPHOR			ZINC
SAMPLE	DATE	WATER	UNF.TOT.	FIL.REAC	UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE	TURB'ITY	UNF.TOT.
YYMMDD	HOUR	TEMP	MG/L	MG/L	MG/L		UG/L	MG/L	PARTIC.	FTU	MG/L
LMT		DEG.C	AS NI	AS N	AS PB	PH	PHENOL	AS P	MG/L		AS ZN
830207	1300	16421	1.0	0.006	0.003<	7.73		0.048	2.930	2.30	0.002
830316	1030	16434	3.0	0.002<	0.003<	7.45	0.2<T	0.024		4.30	0.005
830330	1030	16447	1.0	0.002<	0.003<	7.72	0.2<W	0.021		3.00	0.005
830530	1445	16460	13.5	0.002	0.003<	7.60	0.2<T	0.017		2.30	0.003<
830622	1430	16473	24.0	0.001	0.003<	7.24		0.029		2.10	0.006
830725	1720	16486	22.0	0.002<	0.003<	7.32	0.4<T	0.020		2.20	0.003
830809	0830	16499	22.0	0.002<	0.003<	7.42	1.4	0.015		1.65	0.005
830920	1600	16512	22.5	0.005	0.003<	7.64	0.4<T	0.016		2.40	0.002
831017	1645	16525	13.5	0.002<	0.003<	7.67	0.2<W	0.017		2.40	0.002
831122	0950	16538	4.5	0.002<	0.004	7.69		0.018		2.50	0.004
MAXIMUM		24.0	0.005	0.006	0.004	7.73	1.4	0.048	2.930	4.30	0.006
ARITH MEAN		12.7	0.003	0.006	0.004	7.55	0.4<A	0.022	2.930	2.51	0.004
GEOM MEAN		7.6				7.55	0.3<A	0.021		2.44	
MINIMUM		1.0	0.001	0.006	0.004	7.24	0.2	0.015	2.930	1.65	0.002
STD DEV (GEOM *)		9.6				0.18	0.4<A	0.010		0.71	
# SAMP IN STATISTICS		10	3	1	1	10	7	10	1	10	9
% SAMP (EXCLUDED)			66		90						10

1983 WATER QUALITY DATA REGION 4

105

B.O.W./ SITE: OTTAWA RIVER
 SAMPLE POINT: AT CHENAUX DAM 800' FROM P/Q SHORE
 STATION TYPE: RIVER

STATION ID: 18-0000-240-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER

STORET CODE: 02
 006

LAT: 45 35 35.60 LONG: 076 40 27.70

U T M: 18 0369400.0 5049999.0 4

REGION: 04

DISTANCE: 303.514

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FNSTRC	FHTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	NUMBER	SUB-PROJ	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	STREAM	WATER
YYMMDD	LMT		CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CACO3	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830104	1300	15301	0101	67.7	0.001<	175.0	0.060	17.00	0.145	4	1.0
830207		15303	0101	65.9	0.001<	171.0	0.061	17.00	0.170	4	1.0
830301	1300	15305	0101	49.7		135.0	0.044	16.00	0.110	4	0.1
830405		15307	0101	66.4	0.001<	171.0	0.084		3.900		
830502	1300	15309	0101	66.3	0.001<	170.0	0.076	12.00	0.515	8	10.0
830606	1300	15311	0101	48.8	0.001<	117.0	0.110	12.00	0.410	8	16.0
830704	1300	15313	0101	16.9	0.001<	59.7	0.039	13.00	0.238	8	22.0
830808	1300	15315	0101	52.9		130.0	0.150	14.00	0.165	8	23.0
830912	1300	15317	0101	48.4	0.001<	119.0	0.120	10.00	0.160	8	24.0
831003	1300	15319	0101	24.4	0.001	67.2	0.005	13.00	0.150	8	16.0
831107	1300	15321	0101				0.080	16.00	0.160	8	5.0
831205	1300	15323	0101	75.2	0.001<	199.0	0.064	16.00	0.140	8	
		MAXIMUM	0.30	75.2	0.001	199.0	0.150	17.00	3.900		24.0
		ARITH MEAN	0.30	53.0	0.001	137.6	0.074	14.18	0.522		11.8
		GEOM MEAN		48.9		129.4	0.060	13.99	0.245		5.2
		MINIMUM	0.30	16.9	0.001	59.7	0.005	10.00	0.110		0.1
		STD DEV (GEOM *)		18.4		45.1	0.039	2.36	1.071		9.6
		# SAMP IN STATISTICS	11	11	1	11	12	11	12		10
		% SAMP (EXCLUDED)			88						
*INTERIM TEST-NAME:		NIUT	NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT	
SAMPLE		NICKEL	NH3-N	LEAD		PHENOLS	PHOSPHOR				
DATE	HOUR	UNF. TOT.	TOTAL	UNF. TOT.		UNF-REAC	UNF. TOT.	RESIDUE	TURB'ITY	UNF. TOT.	
YYMMDD	LMT	MG/L	FIL. REAC	MG/L		UG/L	MG/L	PARTIC.	FTU	MG/L	
		AS NI	AS N	AS PB	PH	PHENOL	AS P	MG/L		AS ZN	
830104	1300	0.001<		0.003<	7.81	0.4<T	0.015		2.10	0.005	
830207		0.002<		0.003<	7.68	0.2<W	0.021		2.90	0.006	
830301	1300		0.084	0.003<	8.15	0.2<W	0.011	2.520	1.40	0.002	
830405		0.006		0.003<	7.72	1.0	0.117			0.016	
830502	1300	0.002<		0.003<	8.06	0.2<W	0.034		5.60	0.004	
830606	1300	0.002<		0.003<	7.85	0.2<W	0.024		6.30	0.006	
830704	1300	0.210		0.190	7.30	0.4<T	0.014		2.20	2.800	
830808	1300		0.014	0.003<	7.83	0.2<W	0.009	3.030	3.10	0.007	
830912	1300	0.002<		0.003<	7.81	0.2<T	0.023		2.50	0.007	
831003	1300	0.002		0.027	7.43	0.6<T	0.016		2.20	0.034	
831107	1300			0.003		0.2<W				0.008	
831205	1300	0.001<		0.003<	7.98	0.2<W	0.013		2.30	0.005	

(CONTD)

1983 WATER QUALITY DATA REGION 4

106

B.O.W./ SITE: OTTAWA RIVER
 SAMPLE POINT: AT CHENAUX DAM 800' FROM P/Q SHORE
 STATION TYPE: RIVER

STATION ID: 18-0000-240-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER

STORET CODE: 02
 006

LAT: 45 35 35.60 LONG: 076 40 27.70 U T M: 18 0369400.0 5049999.0 4 REGION: 04 DISTANCE: 303.514

*=INTERIM	TEST-NAME:	NIUT	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
		NICKEL		LEAD		PHENOLS	PHOSPHOR			ZINC
SAMPLE	UNF.TOT.	FIL.REAC	UNF.TOT.	UNF-REAC	UNF.TOT.	RESIDUE	TURB'ITY	UNF.TOT.		
DATE	MG/L	MG/L	MG/L	UG/L	MG/L	PARTIC.	FTU	MG/L		
YYMMDD LMT	AS NI	AS N	AS PB	PH	PHENOL	AS P				AS ZN
MAXIMUM	0.210	0.084	0.190	8.15	1.0	0.117	3.030	6.30	2.800	
ARITH MEAN	0.073	0.049	0.073	7.78	0.3<A	0.027	2.775	3.06	0.242	
GEOM MEAN		0.034		7.78	0.3<A	0.020	2.763	2.76	0.011	
MINIMUM	0.002	0.014	0.003	7.30	0.2	0.009	2.520	1.40	0.002	
STD DEV (GEOM *)		0.049		0.25	0.2<A	0.031	0.361	1.60	0.806	
# SAMP IN STATISTICS	3	2	3	11	12	11	2	10	12	
% SAMP (EXCLUDED)	66		75							

1983 WATER QUALITY DATA REGION 4

107

B.O.W./ SITE: KEMPTVILLE CREEK
 SAMPLE POINT: HIGHWAY 43, KEMPTVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02LA006

STATION ID: 18-0033-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 02 10.16 LONG: 075 38 30.33 U T M: 18 0449450.0 4986950.0 4 REGION: 04 DISTANCE: 56.165

*INTERIM		TEST-NAME:	FMSADP	FMDPTS	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FCMF
SAMPLE						ALK	BOD					FECAL
DATE	HR		SAMPLE	WATER	PROJECT	TOTAL	5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	COLIFORM
YYMMDD	LMT	SAMPLE	DEPTH	DEPTH	SUB-PROJ	MG/L	TOT.DEM.	UNF.REAC	25C	UNF.TOT.	OXYGEN	NF
		NUMBER	M	M	CODE	AS CACO3	MG/L	MG/L	UMHO/CM	MG/L	MG/L	CNT
							AS O	AS CL-	AT 25 C	AS CU	AS O	/100ML
830119	0955	18007	0.30	0.30	0101	198.1		9.30	400.0	0.003	10.00	670
830216	0935	18019	0.30		0101	204.0	1.30<T	11.80	416.0	0.002		250
830317	0940	18031	0.30		0101	132.2	0.74	5.22	271.0	0.010	11.60	250
830428	0935	18043	0.30		0101	148.3	1.13	5.40	292.0	0.010	9.70	550
830526	1000	18055	0.30		0101	171.0	1.23	7.18	344.0	0.004	8.20	
830623	0940	18067	0.30		0101	177.8	1.04	8.08	364.0	0.002	7.20	
830725	1510	18079	0.30		0101	187.7		30.60	444.0	0.002	6.90	
830830	1520	18091	0.30		0101	200.6	5.26	31.70	535.0	0.025	11.40	30<=>
830926	1020	18103	0.30		0101	215.4	5.38	60.20	596.0	0.003	11.60	10<
831025	1435	18115	0.30		0101	220.5	2.71	57.00	620.0	0.004	7.20	10<
831122	0915	18127	0.30		0101	109.8	0.94	7.47	333.0	0.002	11.60	520
		MAXIMUM	0.30	0.30		220.5	5.38	60.20	620.0	0.025	11.60	670
		ARITH MEAN	0.30	0.30		178.7	2.19<A	21.27	419.5	0.006	9.54	378
		GEOM MEAN				175.1	1.67<A	14.12	405.1	0.004	9.34	
		MINIMUM	0.30	0.30		109.8	0.74	5.22	271.0	0.002	6.90	30
		STD DEV (GEOM *)				35.4	1.86<A	20.72	118.4	0.007	2.00	
		# SAMP IN STATISTICS	11	1		11	9	11	11	11	10	6
		% SAMP (EXCLUDED)										25

*INTERIM		TEST-NAME:	FSMF	FMFLOW	FMSTRC	FWTEMP	NNHTFR	PBUT	PH	PPUT	TCMF	TCMFBK
SAMPLE			FECAL	STREAM			NH3-N				COLIFORM	COLIFORM
DATE	HR		STREPCUS	FLOW		WATER	TOTAL	LEAD		PHOSPHOR	TOTAL	TOTAL MF
YYMMDD	LMT	SAMPLE	MF	FLOW		TEMP	FIL.REAC	UNF.TOT.		UNF.TOT.	MF	BCKGRD
		NUMBER	CNT	M3	STREAM	DEG.C	MG/L	MG/L	PH	MG/L	CNT	CNT
			/100ML	/S	COND.		AS N	AS PB		AS P	/100ML	/100ML
830119	0955	18007	390	2.650	6 4		0.060	0.003<	8.29	0.020	5600	18400
830216	0935	18019	80<=>	2.290	6 4	0.5	0.204	0.003<	7.96	0.037	3700	17500
830317	0940	18031	20<=>	15.100	6 3	1.5	0.004<T	0.019	8.50	0.022	3800	6100
830428	0935	18043	100	15.400	6 8	11.0	0.010	0.003<	8.02	0.027	5900<=>	46000
830526	1000	18055		2.970	5 8	14.5	0.008	0.003<	8.06	0.036		
830623	0940	18067		0.518	5 7	25.0	0.030	0.003<	7.87	0.076		
830725	1510	18079		0.097	5 7		0.006<T	0.003<	7.97	0.152		
830830	1520	18091	10<	0.017	5 7	22.0	0.550	0.003<	8.30	0.335	13200<=>	220000
830926	1020	18103	10<	0.019	5 7	14.5	0.720	0.003<	7.94	1.170	400<=>	5800
831025	1435	18115	10<	0.063	5 7	9.0	1.970	0.003<	8.10	0.470	240	2600
831122	0915	18127	620	12.000	5 8	2.0	0.030	0.003<	7.69	0.051	6700<=>	79000

(CONT'D)

1983 WATER QUALITY DATA REGION 4

108

B.O.W./ SITE: KEMPTVILLE CREEK
 SAMPLE POINT: HIGHWAY 43, KEMPTVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02LA006

STATION ID: 18-0033-003-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 02 10.16 LONG: 075 38 30.33 U T M: 18 0449450.0 4986950.0 4 REGION: 04 DISTANCE: 56.165

*INTERIM TEST-NAME:		FSHF	FWFLOW	FWSTRC	FWTEMP	NNHTR	PBUT	PH	PPUT	TCHF	TCMFBK
		FECAL				NH3-N				COLIFORM	COLIFORM
		STREPCUS	STREAM			TOTAL	LEAD			TOTAL	TOTAL MF
SAMPLE	DATE HOUR	MF	FLOW		WATER	FIL.REAC	UNF.TOT.		PHOSPHOR	UNF.TOT.	BCKGRD
YYMMDD	LMT	CNT	M3	STREAM	TEMP	MG/L	MG/L		MG/L	CNT	CNT
		/100ML	/S	COND.	DEG.C	AS N	AS PB	PH	AS P	/100ML	/100ML
	MAXIMUM	620	15.400		25.0	1.970	0.019	8.50	1.170	13200	220000
	ARITH MEAN	242	4.648		11.1	0.327<A	0.019	8.06	0.218	4942	49425
	GEOM MEAN		0.764		6.4	0.056<A		8.06	0.085	2815	19806
	MINIMUM	20	0.017		0.5	0.004	0.019	7.69	0.020	240	2600
	STD DEV (GEOM *)		6.268		8.9	0.598<A		0.23	0.349	4*	4*
	# SAMP IN STATISTICS	5	11		9	11	1	11	11	8	8
	% SAMP (EXCLUDED)	37					90				

*INTERIM TEST-NAME:		TURB	ZNUT
			ZINC
			UNF.TOT.
SAMPLE	DATE HOUR	TURB'ITY	MG/L
YYMMDD	LMT	FTU	AS ZN
830119	0955	18007	1.70
830216	0935	18019	2.80
830317	0940	18031	2.50
830428	0935	18043	2.50
830526	1000	18055	2.30
830623	0940	18067	3.60
830725	1510	18079	1.30
830830	1520	18091	5.00
830926	1020	18103	4.80
831025	1435	18115	2.20
831122	0915	18127	5.20
	MAXIMUM	5.20	0.012
	ARITH MEAN	3.08	0.005
	GEOM MEAN	2.81	0.004
	MINIMUM	1.30	0.001
	STD DEV (GEOM *)	1.36	0.003
	# SAMP IN STATISTICS	11	11
	% SAMP (EXCLUDED)		

1983 WATER QUALITY DATA REGION 4

109

B.O.W./ SITE: TAY RIVER
 SAMPLE POINT: 1 MILE DOWNSTREAM FROM PERTH LAGOONS
 STATION TYPE: RIVER

STATION ID: 18-0033-008-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 44 53 34.96 LONG: 076 11 52.84 U T M: 18 0405400.0 4971550.0 4 REGION: 04 DISTANCE: 114.099

*INTERIM TEST-NAME:		FMSADP	FWDPTS	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FCMF
					ALK	5 DAY					FECAL
SAMPLE DATE	HOUR	SAMPLE	SAMPLE	PROJECT	TOTAL	TOT. DEM.	CHLORIDE	CONDUCT.	COPPER	DISOLVED	COLIFORM
YMMDD	LMT	NUMBER	DEPTH	SUB-PROJ	MG/L	MG/L	UNF. REAC	25C	UNF. TOT.	OXYGEN	MF
			M	CODE	AS	AS O	MG/L	UMHO/CM	MG/L	MG/L	CNT
							AS CL-	AT 25 C	AS CU	AS O	/100ML
830119	1250	18010	0.30	0101	77.0		5.15	192.0	0.003	12.40	740
830216	1230	18022	0.30	0101	73.1	1.07	5.92	186.0	0.003	11.40	1230
830317	1315	18034	0.30	0101	89.7	1.13	8.56	225.0	0.006	12.60	20<=>
830428	1205	18046	0.30	0101	96.7	1.12	3.88	220.0	0.005	12.80	10<
830526	1235	18058	0.30	0101	108.9	1.20	2.95	230.0	0.003	9.50	
830628	1155	18070	0.30	0101	75.2	0.80	3.76	175.0			
830726	1015	18082	0.30	0101	65.3		3.37	154.0	0.001	6.80	
830831	0945	18094	0.30	0101	61.7	0.66	4.05	154.0	0.006	5.20	10<=>
830927	1210	18106	0.30	0101	67.0	0.70	3.20	146.0	0.001	9.40	20<=>
831026	0930	18118	0.30	0101	78.8	1.44	7.54	212.0	0.002	8.90	30<=>
831122	1040	18130	0.30	0101	87.8	0.86	11.56	268.0	0.001	10.80	460
MAXIMUM			0.30	0.30	108.9	1.44	11.56	268.0	0.006	12.80	1230
ARITH MEAN			0.30	0.30	80.1	1.00	5.45	196.5	0.003	9.98	359
GEOM MEAN					79.0	0.97	4.94	193.2	0.003	9.64	
MINIMUM			0.30	0.30	61.7	0.66	2.95	146.0	0.001	5.20	10
STD DEV (GEOM *)					14.4	0.26	2.73	38.2	0.002	2.54	
# SAMP IN STATISTICS			11	1	11	9	11	11	10	10	7
% SAMP (EXCLUDED)											12
*INTERIM TEST-NAME:		FMSF	FWSTRC	FWTEMP	NNHTFR	PBUT	PH	PPUT	TCMF	TCMFBK	TURB
		FECAL			NH3-N	LEAD			COLIFORM	COLIFORM	
		STREPCUS			TOTAL	UNF. TOT.		PHOSPHOR	TOTAL	TOTAL MF	
SAMPLE DATE	HOUR	SAMPLE	WATER	TEMP	FIL. REAC	MG/L		UNF. TOT.	MG/L	BCKGRD	
YMMDD	LMT	NUMBER	TEMP	DEG.C	MG/L	AS N	PH	MG/L	CNT	CNT	TURB'ITY
			COND.		AS N			AS P	/100ML	/100ML	FTU
830119	1250	18010	170	6.4	0.148	0.003<	8.04	0.038	5900	19000	1.60
830216	1230	18022	280	6.4	0.260	0.003<	7.91	0.050	10600<=>	24500	1.40
830317	1315	18034	40<=>	6.8	0.006	0.005	8.27	0.047	2300	4400	2.90
830428	1205	18046	10<	6.8	0.004<	0.003<	8.39	0.014	20<=>	680	1.06
830526	1235	18058		5.8	0.042	0.003<	8.00	0.026			1.10
830628	1155	18070		5.8	0.058		7.90	0.045			0.80
830726	1015	18082		5.7	0.034	0.003	7.60	0.024			2.00
830831	0945	18094	30<=>	5.7	0.074	0.003<	8.09	0.025	600<=>	240000>	1.40
830927	1210	18106	20<=>	5.8	0.036	0.003<	8.09	0.030	1000	7900	1.80
831026	0930	18118	10<	5.8	0.170	0.003<	7.50	0.032	1100	8000	3.80
831122	1040	18130	1150	5.8	0.138	0.003	7.50	0.040	4500<=>	130000	4.30

(CONT'D)

1983 WATER QUALITY DATA REGION 4

110

B.O.W./ SITE: TAY RIVER
SAMPLE POINT: 1 MILE DOWNSTREAM FROM PERTH LAGOONS
STATION TYPE: RIVER

STATION ID: 18-0033-008-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: RIDEAU RIVER

STORET CODE: 02
006
1710

LAT: 44 53 34.96 LONG: 076 11 52.84 U T M: 18 0405400.0 4971550.0 4 REGION: 04 DISTANCE: 114.099

*INTERIM TEST-NAME:		FSMF FECAL STREPCUS	FWSTRC	FWTEMP	NNHTR NH3-N TOTAL	PBUT LEAD	PH	PPUT PHOSPHOR	TCMF COLIFORM	TCMFBK COLIFORM	TURB
SAMPLE DATE	HOUR	SAMPLE NUMBER	HF CNT /100ML	STREAM COND.	WATER TEMP DEG.C	FIL.REAC MG/L AS N	UNF.TOT. MG/L AS PB	UNF.TOT. MG/L AS P	TOTAL HF CNT /100ML	TOTAL MF BCKGRD CNT /100ML	TURB'ITY FTU
YYMMDD	LMT										
		MAXIMUM	1150		25.0	0.260	0.005	8.39	0.050	10600	4.30
		ARITH MEAN	282		12.6	0.088<A	0.004	7.94	0.034	3252	2.01
		GEOM MEAN			8.6	0.050<A		7.93	0.032	1308	1.76
		MINIMUM	20		1.0	0.004	0.003	7.50	0.014	20	0.80
		STD DEV (GEOM *)			8.8	0.081<A		0.30	0.011	7*	1.16
		# SAMP IN STATISTICS	6		10	11	3	11	11	8	11
		% SAMP (EXCLUDED)	25				70			12	

*INTERIM TEST-NAME:		ZNUT ZINC
SAMPLE DATE	HOUR	UNF.TOT. MG/L AS ZN
YYMMDD	LMT	
830119	1250	18010 0.001
830216	1230	18022 0.005
830317	1315	18034 0.004
830428	1205	18046 0.005
830526	1235	18058 0.001<
830726	1015	18082 0.004
830831	0945	18094 0.004
830927	1210	18106 0.001
831026	0930	18118 0.004
831122	1040	18130 0.003
		MAXIMUM 0.005
		ARITH MEAN 0.003
		GEOM MEAN
		MINIMUM 0.001
		STD DEV (GEOM *)
		# SAMP IN STATISTICS 9
		% SAMP (EXCLUDED) 10

111

1983 WATER QUALITY DATA REGION 4

111

B.O.W./ SITE: JOCK RIVER
 SAMPLE POINT: AT TWP.LINE DOWNSTREAM FROM RICHMOND
 STATION TYPE: RIVER FLOW GAUGE FED 02LA007

STATION ID: 18-0033-016-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 11 54.22 LONG: 075 49 13.97 U T M: 18 0435550.0 5005100.0 4 REGION: 04 DISTANCE: 41.359

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
				ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
SAMPLE DATE	YEAR MONTH DAY	SAMPLE DEPTH	PROJECT SUB-PROJ	TOTAL MG/L	UNF.TOT. MG/L	25C	UNF.TOT. MG/L	OXYGEN	UNF.TOT. MG/L	FLOW	COND.
YYMMDD	LMT	NUMBER	CODE	AS CAC03	AS AS	UMHO/CM AT 25 C	AS CU	MG/L AS O	MG/L AS FE	M3 /S	
830830	1015	18085	0101	189.8	0.001<	465.0	0.051	7.00	0.085	0.027	5 8
		MAXIMUM		189.8		465.0	0.051	7.00	0.085	0.027	
		ARITH MEAN		189.8		465.0	0.051	7.00	0.085	0.027	
		GEOM MEAN									
		MINIMUM		189.8		465.0	0.051	7.00	0.085	0.027	
		STD DEV (GEOM *)									
		# SAMP IN STATISTICS	1	1		1	1	1	1	1	
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
			NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE DATE	YEAR MONTH DAY	WATER TEMP	UNF.TOT. MG/L	UNF.TOT. MG/L	PH	UNF-REAC	UNF.TOT. MG/L	TURB'ITY	UNF.TOT. MG/L
YYMMDD	LMT	DEG.C	AS NI	AS PB		UG/L	AS P	FTU	AS ZN
830830	1015	21.5	0.006	0.003<	8.03	0.2<W	0.030	0.76	0.005
		MAXIMUM	21.5	0.006	8.03	0.2	0.030	0.76	0.005
		ARITH MEAN	21.5	0.006	8.03	0.2<A	0.030	0.76	0.005
		GEOM MEAN							
		MINIMUM	21.5	0.006	8.03	0.2	0.030	0.76	0.005
		STD DEV (GEOM *)							
		# SAMP IN STATISTICS	1	1	1	1	1	1	1
		% SAMP (EXCLUDED)							

1983 WATER QUALITY DATA REGION 4

112

B.O.W./ SITE: JOCK RIVER
 SAMPLE POINT: AT QUEEN STREET RICHMOND
 STATION TYPE: RIVER

STATION ID: 18-0033-017-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 11 21.49 LONG: 075 49 59.33 U T M: 18 0434550.0 5004100.0 4 REGION: 04 DISTANCE: 44.256

*INTERIM TEST-NAME:		FWSADP	FWDPTS	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	
SAMPLE DATE	DATE HOUR	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L	ARSENIC UNF.TOT. MG/L	CONDUCT. 25C UNF.TOT. MG/L	COPPER UNF.TOT. MG/L	DISSOLVED OXYGEN MG/L	IRON UNF.TOT. MG/L	STREAM COND.
YYMMDD	LMT					AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	
830118	1545	18000	0.30	0.30	0101	207.4	0.001<	432.0	0.009	7.40	0.155	6 4
830215	1345	18012	0.30		0101	245.3	0.001<	522.0	0.003	8.00	0.635	6 4
830316	1015	18024	0.30		0101	138.6	0.001<	303.0	0.007	13.00	0.220	6 3 9
830427	1145	18036	0.30		0101	148.7	0.001<	308.0	0.001<	9.40	0.075	6 3
830525	0925	18048	0.30		0101	167.7	0.001<	363.0	0.009	8.50	0.195	5 8
830622	0925	18060	0.30		0101	190.2	0.001	376.0	0.007	5.70	0.690	5 8
830725	0830	18072	0.30		0101	141.9	0.001	303.0	0.018	9.80	0.090	5 8
830830	0940	18084	0.30		0101	133.3	0.001<	314.0	0.020	8.00	0.140	5 8 9
830927	0950	18096	0.30		0101	147.2	0.001<	365.0	0.001	8.60	0.105	5 8
831025	0940	18108	0.30		0101	183.6	0.001<	486.0	0.002	12.60	0.085	5 8
831121	1050	18120	0.30		0101	128.4	0.001<	356.0	0.003	10.60	0.090	3 0
MAXIMUM			0.30	0.30		245.3	0.001	522.0	0.020	13.00	0.690	
ARITH MEAN			0.30	0.30		166.6	0.001	375.3	0.008	9.24	0.225	
GEOM MEAN						163.3		369.0		9.00	0.163	
MINIMUM			0.30	0.30		128.4	0.001	303.0	0.001	5.70	0.075	
STD DEV (GEOM *)						36.6		75.1		2.18	0.221	
# SAMP IN STATISTICS			11	1		11	2	11	10	11	11	
% SAMP (EXCLUDED)							81		9			

*INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	DATE HOUR	WATER TEMP	NICKEL UNF.TOT. MG/L	LEAD UNF.TOT. MG/L	PH	PHENOLS UNF-REAC UG/L	PHOSPHOR UNF.TOT. MG/L	TURB'ITY FTU	ZINC UNF.TOT. MG/L
YYMMDD	LMT	DEG.C	AS NI	AS PB		PHENOL	AS P		AS ZN
830118	1545		0.002<	0.003<	7.76	0.2<T	0.017	1.30	0.005
830215	1345	1.5	0.002<	0.003<	7.86	0.2<W	0.036	6.20	0.004
830316	1015	2.0	0.002	0.006	8.33	0.2<T	0.050	1.20	0.004
830427	1145	0.5	0.002<	0.003<	8.44	0.2<T	0.023	1.30	0.002
830525	0925	14.5	0.003	0.003<	8.05	0.4<T	0.023	1.10	0.002
830622	0925	25.0	0.029	0.003<	7.93	0.8	0.047	3.20	0.002
830725	0830	22.0	0.002<	0.003<	8.66	0.2<W	0.037	1.50	0.003
830830	0940	22.5	0.004	0.003<	8.27	-0.2<T	0.039	1.60	0.005
830927	0950	15.0	0.002<	0.003<	8.10	0.2<W	0.046	1.40	0.003
831025	0940	5.5	0.002<	0.003	8.18	0.6<T	0.017	1.37	0.003
831121	1050	2.0	0.002<	0.003<	7.59	0.2<W	0.015	2.40	0.002

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

113

B.O.W./ SITE: JOCK RIVER
SAMPLE POINT: AT QUEEN STREET RICHMOND
STATION TYPE: RIVER

STATION ID: 18-0033-017-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: RIDEAU RIVER

STORET CODE: 02
006
1710

LAT: 45 11 21.49 LONG: 075 49 59.33 U T M: 18 0434550.0 5004100.0 4 REGION: 04 .DISTANCE: 44.256

*=INTERIM TEST-NAME:		FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HR	WATER TEMP	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB*ITY FTU	UNF.TOT. MG/L
YYMMDD	LMT	DEG.C	AS NI	AS PB	PH	PHENOL	AS P		AS ZN
MAXIMUM		25.0	0.029	0.006	8.66	0.8	0.050	6.20	0.005
ARITH MEAN		11.0	0.009	0.004	8.11	0.3<A	0.032	2.05	0.003
GEOM MEAN		5.8			8.10		0.029	1.76	0.003
MINIMUM		0.5	0.002	0.003	7.59	-0.2	0.015	1.10	0.002
STD DEV (GEOM *)		9.8			0.31		0.013	1.51	0.001
# SAMP IN STATISTICS		10	4	2	11	11	11	11	11
% SAMP (EXCLUDED)			63	81					

STORET CODE: 02
006
1710

* = INTERIM		TEST-NAME:	FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE DATE	HR	SAMPLE NUMBER	WATER TEMP DEG.C	UNF. TOT. MG/L AS NI	UNF. TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL	UNF. TOT. MG/L AS P	TURB'ITY FTU	UNF. TOT. MG/L AS ZN
830119	1410	18011		0.002<	0.003<	8.09	0.4<T	0.009	0.55	0.001
830216	1335	18023	3.0	0.002<	0.003<	7.97	0.2<T	0.006	0.47	0.001<
830428	1300	18047	8.5	0.002<	0.003<	7.96	0.2<T	0.037	0.80	0.001
830526	1335	18059	13.0	0.002<	0.003<	7.58	0.6<T	0.011	0.79	0.001
830628	1320	18071	25.0	0.002<	0.003<	8.10	0.8	0.010	0.60	0.001<
830726	1125	18083	23.0	0.002<	0.003<	7.77	0.2<W	0.013	0.68	0.001<
830831	1050	18095	22.0	0.002	0.003<	7.52	0.4<T	0.012	0.50	0.003
830927	1320	18107	18.0	0.002<	0.003<	8.08	0.2<W	0.027	1.20	0.001
831122	1245	18131	3.0	0.002<	0.003<	7.80	0.2<W	0.018	1.10	0.001<
MAXIMUM			25.0	0.002		8.10	0.8	0.037	1.20	0.003
ARITH MEAN			14.4	0.002		7.87	0.4<A	0.016	0.74	0.001
GEOM MEAN			11.1			7.87	0.3<A	0.014	0.71	
MINIMUM			3.0	0.002		7.52	0.2	0.006	0.47	0.001
STD DEV (GEOM *)			8.9			0.22	0.2<A	0.010	0.26	
# SAMP IN STATISTICS			8	1		9	9	9	9	5
% SAMP (EXCLUDED)				88						44

1983 WATER QUALITY DATA REGION 4

115

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT DAM IN KILMARNOCK
 STATION TYPE: RIVER

STATION ID: 18-0033-026-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 44 53 14.85 LONG: 075 55 39.17 U T M: 18 0426750.0 4970650.0 4 REGION: 04 DISTANCE: 88.190

*INTERIM TEST-NAME:		FMSADP	FMDPTS	FGPROJ	ALKT	BOD5 BOD 5 DAY	CLIDUR	COND25	CUUT	DO	FCMF FECAL COLIFORM MF CNT /100ML
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CAC03	CHLORIDE UNF. REAC MG/L AS CL-	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF. TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	
830119		18009	0.30	0.30	0101	100.9	6.25	237.0	0.020	13.20	700
830216		18021	0.30		0101	96.0	1.47	10.00	0.004	12.20	1270
830317	1050	18033	0.30		0101	119.0	1.33	7.66	0.007	11.40	70<=>
830428	1100	18045	0.30		0101	101.6	1.85	6.67	0.004	13.70	40<=>
830526	1115	18057	0.30		0101	93.4	1.25	4.80	0.002	9.40	
830628	1050	18069	0.30		0101	99.6	1.19	5.84		7.20	
830726	0920	18081	0.30		0101	68.7	5.35	167.0	0.001<	10.00	
830831	0855	18093	0.30		0101	72.2	0.84	4.74	0.013	7.80	10<
830927	1115	18105	0.30		0101	83.0	0.58	4.71	0.001	9.60	10<
831026	0835	18117	0.30		0101	89.2	0.92	6.69	0.001	10.60	10<=>
831122	1045	18129	0.30		0101	102.7	0.72	9.31	0.001	12.60	540
		MAXIMUM	0.30	0.30		119.0	1.85	10.00	0.020	13.70	1270
		ARITH MEAN	0.30	0.30		93.3	1.13	6.55	0.006	10.70	438
		GEOM MEAN				92.2	1.06	6.34		10.50	
		MINIMUM	0.30	0.30		68.7	0.58	4.71	0.001	7.20	10
		STD DEV (GEOM *)				14.5	0.40	1.80		2.14	
		# SAMP IN STATISTICS	11	1		11	9	11	9	11	6
		% SAMP (EXCLUDED)							10		25
*INTERIM TEST-NAME:		FMSF FECAL STREPCUS MF CNT /100ML	FMSTRC	FWTEMP	NNHTFR NH3-N TOTAL FIL. REAC MG/L AS N	PBUT LEAD UNF. TOT. MG/L AS PB	PH	PPUT PHOSPHOR UNF. TOT. MG/L AS P	TCHF COLIFORM TOTAL MF CNT /100ML	TCHFBK COLIFORM TOTAL MF BCKGRD CNT /100ML	TURB TURBIDITY FTU
830119		70<=>	6 8		0.038	0.000<	8.22	0.021	3600	2900	1.20
830216		110	6 8	0.5	0.080	0.003<	8.07	0.025	4800	7800	1.12
830317	1050	18033	10<	4.0	0.006	0.004	8.46	0.028	760	2100	1.10
830428	1100	18045	10<	6 8	10.0	0.004<	8.34	0.020	780<=>	6600	2.00
830526	1115	18057	5 8	15.0	0.028	0.003<	8.00	0.064			4.60
830628	1050	18069	5 8	25.0	0.072		8.05	0.081			2.00
830726	0920	18081	5 8	22.0	0.064	0.003<	8.88	0.028			1.00
830831	0855	18093	10<	5 8	22.0	0.044	8.03	0.027	20<=>	48000>	1.30
830927	1115	18105	10<	5 8	15.0	0.036	8.51	0.020	40<=>	60<=>	0.90
831026	0835	18117	10<	6 8	7.5	0.066	8.10	0.030	20<=>	2400	1.44
831122	1045	18129	20<=>	6 8	3.0	0.060	8.06	0.022	1320	3000	1.90

(CONT'D)

1983 WATER QUALITY DATA REGION 4

116

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT DAM IN KILMARNOCK
 STATION TYPE: RIVER

STATION ID: 18-0033-026-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 44 53 14.85 LONG: 075 55 39.17 U T M: 18 0426750.0 4970650.0 4 REGION: 04 DISTANCE: 88.190

*INTERIM TEST-NAME:		FMSF FECAL STREPCUS	FWSTRC	FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PPUT	TCHF COLIFORM TOTAL	TCHF BK COLIFORM TOTAL MF BCKGRD	TURB
SAMPLE DATE	HOUR	SAMPLE NUMBER	CNT /100ML	STREAM COND.	WATER TEMP DEG.C	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PHOSPHOR UNF.TOT. MG/L AS P	TCHF COLIFORM TOTAL CNT /100ML	TCHF BK COLIFORM TOTAL MF BCKGRD CNT /100ML	TURB ITY FTU
		MAXIMUM	110		25.0	0.080	0.004	8.88	0.081	4800	4.60
		ARITH MEAN	67		12.4	0.045<A	0.004	8.25	0.033	1417	1.69
		GEOM MEAN			8.1	0.033<A		8.24	0.030	348	1.50
		MINIMUM	20		0.5	0.004	0.004	8.00	0.020	20	0.90
		STD DEV (GEOM *)			8.7	0.026<A		0.28	0.020	10*	1.05
		# SAMP IN STATISTICS	3		10	11	1	11	11	8	11
		% SAMP (EXCLUDED)	62				90			12	

*INTERIM TEST-NAME:		ZNUT ZINC
SAMPLE DATE	HOUR	SAMPLE NUMBER
830119		18009
830216		18021
830317	1050	18033
830428	1100	18045
830526	1115	18057
830726	0920	18081
830831	0855	18093
830927	1115	18105
831026	0835	18117
831122	1045	18129

*INTERIM TEST-NAME:		ZNUT ZINC
SAMPLE DATE	HOUR	SAMPLE NUMBER
		MAXIMUM
		ARITH MEAN
		GEOM MEAN
		MINIMUM
		STD DEV (GEOM *)
		# SAMP IN STATISTICS
		% SAMP (EXCLUDED)

1983 WATER QUALITY DATA REGION 4

117

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: DNSTR.FROM CONFLUENCE WITH JOCK RIVER
 STATION TYPE: RIVER

STATION ID: 18-0033-028-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 15 46.24 LONG: 075 42 22.05 U T M: 18 0444600.0 5012175.0 4 REGION: 04 DISTANCE: 24.461

*=INTERIM TEST-NAME:		FMSADP	FMDPTS	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FMSTRC	FMTEMP
SAMPLE DATE	YEAR MONTH DAY	SAMPLE DEPTH	WATER DEPTH	PROJECT SUB-PROJ	ALK	CONDUCT.	COPPER	DISOLVED OXYGEN	IRON	STREAM COND.	WATER TEMP
YYMMDD	LMT	NUMBER	M	CODE	MG/L	UMHO/CM	MG/L	MG/L	MG/L		DEG.C
					AS CAC03	AT 25 C	AS CU	AS O	AS FE		
830118	1405	18002	0.30	0101	173.0	388.0	0.010	11.20	0.225	6 8	
830215	1030	18014	0.30	0101	156.1	354.0	0.002	13.00	0.580	6 4	2.0
830316	1130	18026	0.30	0101	129.5	295.0	0.007	13.00	0.445	6 3	3.0
830427	1035	18038	0.30	0101	151.1	335.0	0.001	11.60	0.405	6 3	8.5
830525	2045	18050	0.30	0101	146.9	308.0	0.004	8.90	0.230	5 8	16.5
830622	1355	18062	0.30	0101	126.6	274.0	0.007	7.20	0.230	5 8	27.0
830830	1050	18086	0.30	0101	96.4	219.0	0.013	7.60	0.210	5 7	23.0
830926	1310	18098	0.30	0101	99.3	223.0	0.001	9.20	0.200	5 8	16.5
831025	1050	18110	0.30	0101	101.0	241.0	0.001	10.00	0.145	6 8	8.5
831121	1200	18122	0.30	0101	133.1	366.0	0.002	12.80	0.315	6 8	2.0
MAXIMUM		0.30	0.30		173.0	388.0	0.013	13.00	0.580		27.0
ARITH MEAN		0.30	0.30		131.3	300.3	0.005	10.45	0.298		11.9
GEOM MEAN					128.9	294.7	0.003	10.23	0.274		8.1
MINIMUM		0.30	0.30		96.4	219.0	0.001	7.20	0.145		2.0
STD DEV (GEOM *)					26.2	60.5	0.004	2.19	0.137		9.3
# SAMP IN STATISTICS		10	1		10	10	10	10	10		9
% SAMP (EXCLUDED)											

*=INTERIM TEST-NAME:		NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT	
SAMPLE DATE	YEAR MONTH DAY	TOTAL	LEAD		PHENOLS	PHOSPHOR	RESIDUE	TURB'ITY	ZINC	
YYMMDD	LMT	MG/L	MG/L	PH	UNF-REAC	UNF.TOT.	PARTIC.	FTU	MG/L	
		AS N	AS PB		UG/L	AS P	MG/L		AS ZN	
830118	1405	18002	0.024	0.003<	8.19	0.4<T	0.028	43.600	3.50	0.002
830215	1030	18014	0.018	0.003<	8.09	0.2<W	0.043	15.500	6.10	0.007
830316	1130	18026	0.008	0.006	8.33	0.4<T	0.071	7.290	4.10	0.004
830427	1035	18038	0.002<T	0.003<	8.46	0.2<W	0.040	9.230	7.20	0.003
830525	2045	18050	0.036	0.003<	8.22	0.8	0.037	4.370	2.80	0.001<
830622	1355	18062	0.024	0.003<	8.32	1.0	0.050	7.750	5.50	0.002
830830	1050	18086	0.440	0.003<	7.79	0.2<T	0.081	5.950	7.60	0.008
830926	1310	18098	0.102	0.003<	8.08	0.2<W	0.057	5.000	3.00	0.002
831025	1050	18110	0.102	0.003<	8.05	0.2<W	0.018	3.020	1.90	0.003
831121	1200	18122	0.014	0.003<	7.89	0.2<W	0.065	8.270	6.40	0.004
MAXIMUM		0.440	0.006	8.46	1.0	0.081	43.600	7.60	0.008	
ARITH MEAN		0.077<A	0.006	8.14	0.4<A	0.049	10.998	4.81	0.004	
GEOM MEAN		0.029<A		8.14	0.3<A	0.045	8.051	4.40		
MINIMUM		0.002	0.006	7.79	0.2	0.018	3.020	1.90	0.002	
STD DEV (GEOM *)		0.133<A		0.21	0.3<A	0.020	11.959	2.00		
# SAMP IN STATISTICS		10	1	10	10	10	10	10	9	
% SAMP (EXCLUDED)			90						10	

1983 WATER QUALITY DATA REGION 4

118

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT BRIDGE DOWNSTREAM OF KARS
 STATION TYPE: RIVER

STATION ID: 18-0033-029-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 09 42.39 LONG: 075 38 03.34 U T M: 18 0450150.0 5000900.0 4 REGION: 04 DISTANCE: 38.945

*INTERIM TEST-NAME:		FMSADP	FMDPTS	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC
SAMPLE DATE		SAMPLE DEPTH	WATER DEPTH	PROJECT SUB-PROJ	ALK TOTAL	ARSENIC UNF.TOT.	CONDUCT. 25C	COPPER UNF.TOT.	DISOLVED OXYGEN	IRON UNF.TOT.	STREAM COND.
YYMMDD	HOUR LMT	NUMBER	M	CODE	AS CAC03	MG/L AS AS	UMHO/CM AT 25 C	MG/L AS CU	MG/L AS O	MG/L AS FE	
830118	0945	18006	0.30	0101	135.1	0.001<	304.0	0.007	13.00	0.100	6 4
830215	1530	18018	0.30	0101	128.2	0.001<	292.0	0.002	12.00	0.215	6 4
830317	0855	18030	0.30	0101	133.5	0.001<	288.0	0.007	11.10	0.250	6 3
830427	1220	18042	0.30	0101	135.1	0.001<	298.0	0.001	11.10	0.195	6 8
830525	0925	18054	0.30	0101	132.2	0.001<	279.0	0.011	9.30	0.180	5 8
830622	0850	18066	0.30	0101	117.2	0.001<	245.0	0.001	9.00	0.135	5 8
830725	1435	18078	0.30	0101	98.4	0.001<	221.0	0.001<		0.080	5 8
830830	1445	18090	0.30	0101	86.4	0.001<	195.0	0.013	10.00	0.080	
830926	1105	18102	0.30	0101	92.0	0.001	205.0	0.001	9.40	0.105	5 8
831025	1355	18114	0.30	0101	96.5	0.001<	221.0	0.002	11.20	0.060	6 8
831121	1430	18126	0.30	0101	121.3	0.001<	327.0	0.002	13.00	0.145	6 8
MAXIMUM		0.30	0.30		135.1	0.001	327.0	0.013	13.00	0.250	
ARITH MEAN		0.30	0.30		116.0	0.001	261.4	0.005	10.91	0.140	
GEOM MEAN					114.5		257.7		10.82	0.128	
MINIMUM		0.30	0.30		86.4	0.001	195.0	0.001	9.00	0.060	
STD DEV (GEOM *)					19.0		45.3		1.47	0.062	
# SAMP IN STATISTICS		11	1		11	1	11	10	10	11	
% SAMP (EXCLUDED)						90		9			
*INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT		
SAMPLE DATE		WATER TEMP	NICKEL UNF.TOT.	LEAD UNF.TOT.		PHENOLS UNF-REAC	PHOSPHOR UNF.TOT.	TURB'ITY FTU	ZINC UNF.TOT.		
YYMMDD	HOUR LMT	DEG.C	MG/L AS NI	MG/L AS PB	PH	UG/L PHENOL	MG/L AS P		MG/L AS ZN		
830118	0945		0.002<	0.003<	8.26	0.6<T	0.107	1.60	0.001		
830215	1530		0.002<	0.003<	7.88	0.2<T	0.024	2.80	0.006		
830317	0855	1.5	0.002	0.005	8.12	0.2<W	0.031	2.50	0.007		
830427	1220	9.0	0.002<	0.003<	8.07	0.2<W	0.032	3.80	0.001		
830525	0925	14.0	0.002<	0.003<	8.10	1.8	0.035	3.20	0.002		
830622	0850	25.0	0.002<	0.003<	8.86	1.0	0.072	2.00	0.001<		
830725	1435	26.0	0.002	0.003<	7.89	0.2<T	0.049	7.50	0.001		
830830	1445	23.0	0.002<	0.003<	8.50	0.2<W	0.049	5.30	0.170		
830926	1105	15.5	0.008	0.003<	8.01	0.2<W	0.047	5.10	0.005		
831025	1355	9.5	0.002<	0.003<	8.40	0.2<W	0.030	1.40	0.005		
831121	1430	2.0	0.002<	0.003<	7.86	0.2<W	0.025	3.40	0.009		

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

119

B.O.W./ SITE: RIDEAU RIVER
SAMPLE POINT: AT BRIDGE DOWNSTREAM OF KARS
STATION TYPE: RIVER

STATION ID: 18-0033-029-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: RIDEAU RIVER

STORET CODE: 02
006
1710

LAT: 45 09 42.39 LONG: 075 38 03.34 U T M: 18 0450150.0 5000900.0 4 REGION: 04 DISTANCE: 38.945

*INTERIM TEST-NAME:		FWTEMP	NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC	
SAMPLE DATE	HR	WATER TEMP	UNF.TOT. MG/L	UNF.TOT. MG/L		UNF-REAC UG/L	UNF.TOT. MG/L	TURB'ITY FTU	UNF.TOT. MG/L	
YYMMDD	LMT	DEG.C	AS NI	AS PB	PH	PHENOL	AS P		AS ZN	
		MAXIMUM	26.0	0.008	0.005	8.86	1.8	0.107	7.50	0.170
		ARITH MEAN	12.6	0.004	0.005	8.18	0.5<A	0.046	3.51	0.021
		GEOM MEAN	7.8			8.17	0.3<A	0.041	3.11	
		MINIMUM	1.0	0.002	0.005	7.86	0.2	0.024	1.40	0.001
		STD DEV (GEOM %)	9.7			0.31	0.5<A	0.025	1.84	
# SAMP IN STATISTICS		10	3	1	11	11	11	11	10	
% SAMP (EXCLUDED)			72	90					9	

1983 WATER QUALITY DATA REGION 4

120

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT HOG'S BACK ROAD OTTAWA
 STATION TYPE: RIVER

STATION ID: 18-0033-031-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 22 14.50 LONG: 075 41 50.10 U T M: 18 0445400.0 5024150.0 4 REGION: 04 DISTANCE: 11.426

*INTERIM TEST-NAME:		FMSADP	FMDPTS	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC
					ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	
SAMPLE	DATE	SAMPLE	SAMPLE	PROJECT	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM
DATE	DATE	NUMBER	DEPTH	SUB-PROJ	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.
YYMMDD	LMT		M	CODE	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	
830118	1130	18003	0.30	0101	140.4	0.001<	319.0	0.003	13.00	0.220	6 8
830215	1030	18015	0.30	0101	133.9	0.001<	325.0	0.003	15.60	0.195	6 8
830316	1210	18027	0.30	0101	122.9	0.001<	285.0	0.007	16.00	0.395	6 3
830427	0950	18039	0.30	0101	145.5	0.001<	330.0	0.001	11.00	0.545	6 3
830622	1255	18063	0.30	0101	131.7	0.001<	310.0	0.005	8.20	0.165	5 8
830725	1025	18075	0.30	0101	123.5	0.001	274.0	0.002	9.40	0.110	5 8
830830	1125	18087	0.30	0101	103.2	0.001<	228.0	0.008	8.70	0.150	5 8
830926	1340	18099	0.30	0101	105.4	0.001	238.0	0.001	8.00	0.150	5 8
831025	1125	18111	0.30	0101	103.8	0.001<	253.0	0.001	10.20	0.355	6 8
831121	1230	18123	0.30	0101	125.4	0.001<	345.0	0.002	13.20	0.250	6 8

MAXIMUM 0.30 0.30 145.5 0.001 345.0 0.008 16.00 0.545
 ARITH MEAN 0.30 0.30 123.6 0.001 290.7 0.003 11.33 0.253
 GEOM MEAN 122.7 0.003 10.99 0.225
 MINIMUM 0.30 0.30 103.2 0.001 228.0 0.001 8.00 0.110
 STD DEV (GEOM *) 15.2 41.2 0.003 2.97 0.137
 # SAMP IN STATISTICS 10 1 10 2 10 10 10 10
 % SAMP (EXCLUDED) 80

*INTERIM TEST-NAME:		FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
			NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE	DATE	SAMPLE	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
DATE	DATE	NUMBER	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L
YYMMDD	LMT		AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
830118	1130	18003	0.002<	0.003<	8.11	0.2<T	0.070	3.20	0.003
830215	1030	18015	0.002<	0.003<	7.88	0.2<W	0.026	2.50	0.005
830316	1210	18027	0.002	0.004	8.20	0.4<T	0.080	4.40	0.014
830427	0950	18039	0.002<	0.003<	8.43	0.2<W	0.055	9.50	0.003
830622	1255	18063	0.002<	0.003<	7.72	1.2	0.044	3.00	0.002
830725	1025	18075	0.002<	0.003<	8.02	0.2<W	0.054	3.10	0.002
830830	1125	18087	0.002<	0.003<	8.25	0.2<T	0.053	6.60	0.003
830926	1340	18099	0.002<	0.003<	7.83	0.2<W	0.097	5.10	0.003
831025	1125	18111	0.002<	0.003<	8.03	0.2<W	0.045	5.40	0.004
831121	1230	18123	0.002<	0.003<	7.92	0.2<W	0.040	7.80	0.003

MAXIMUM 27.0 0.002 0.004 8.43 1.2 0.097 9.50 0.014
 ARITH MEAN 12.5 0.002 0.004 8.04 0.3<A 0.056 5.06 0.004
 GEOM MEAN 7.8 0.003 0.053 4.62 0.003
 MINIMUM 1.5 0.002 0.004 7.72 0.2 0.026 2.50 0.002
 STD DEV (GEOM *) 10.4 0.21 0.3<A 0.021 2.32 0.004
 # SAMP IN STATISTICS 9 1 1 10 10 10 10 10
 % SAMP (EXCLUDED) 90 90

1983 WATER QUALITY DATA REGION 4

121

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: ST. PATRICK STREET BRIDGE OTTAWA
 STATION TYPE: RIVER FLOW GAUGE FED 02LA004

STATION ID: 18-0033-034-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 26 13.88 LONG: 075 40 44.00 U T M: 18 0446900.0 5031525.0 4 REGION: 04 DISTANCE: 1.609

*INTERIM TEST-NAME:			FWSADP	FWDPTS	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
						ALK	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
SAMPLE	DATE	DATE	SAMPLE	WATER	PROJECT	TOTAL	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW	
YYMMDD	HR	HR	NUMBER	DEPTH	SUB-PROJ	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	STREAM
YYMMDD	LMT	LMT		M	CODE	AS CACO3	AT 25 C	AS CU	AS O	AS FE	/S	COND.
830118	1250		18004	0.30	0101	146.3	339.0	0.009	13.20	1.625	63.700	6 4
830215	0950		18016	0.30	0101	139.1	428.0	0.007	15.60	5.100	20.000	6 4
830316	1255		18028	0.30	0101	120.1	289.0	0.007	13.40	0.565	71.800	6 3
830427	0910		18040	0.30	0101	146.0	337.0	0.001	11.40	0.635	160.000	6 3
830525	1210		18052	0.30	0101	143.8	308.0	0.001<	9.50	0.250	45.800	5 8
830622	1155		18064	0.30	0101	144.1	335.0	0.006	6.60	0.155	8.850	5 8
830725	1110		18076	0.30	0101	120.6	316.0	0.015	8.20	0.090	4.150	5 8
830830	1200		18088	0.30	0101	100.4	256.0	0.016	5.90	0.105	6.030	5 7
830926	1415		18100	0.30	0101	109.0	262.0	0.001	7.80	0.105	6.780	5 8
831025	1200		18112	0.30	0101	103.9	253.0	0.002	11.20	0.255	37.400	6 8
831121	1310		18124	0.30	0101	125.8	355.0	0.002	13.40	0.295	68.700	6 8
MAXIMUM			0.30	0.30		146.3	428.0	0.016	15.60	5.100	160.000	
ARITH MEAN			0.30	0.30		127.2	316.2	0.007	10.56	0.835	44.837	
GEOM MEAN						126.0	312.5		10.10	0.346	25.185	
MINIMUM			0.30	0.30		100.4	253.0	0.001	5.90	0.090	4.150	
STD DEV (GEOM *)						17.6	51.6		3.18	1.483	46.360	
# SAMP IN STATISTICS			11	1		11	11	10	11	11	11	
% SAMP (EXCLUDED)								9				
*INTERIM TEST-NAME:			FWTEMP	NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT	
				NH3-N								
SAMPLE	DATE	DATE	WATER	FIL.REAC	UNF.TOT.		PHENOLS	PHOSPHOR	RESIDUE	TURB'ITY	UNF.TOT.	
YYMMDD	HR	HR	TEMP	MG/L	MG/L		UNF-REAC	UNF.TOT.	PARTIC.	FTU	MG/L	
YYMMDD	LMT	LMT	DEG.C	AS N	AS PB	PH	UG/L	AS P	MG/L		AS ZN	
830118	1250		18004	0.024	0.003<	8.31	0.4<T	0.107	2.070	27.00	0.029	
830215	0950		18016	0.006	0.013	7.86	0.8	0.205		61.00	0.032	
830316	1255		18028	0.008	0.007	8.31	0.2<T	0.090	14.300	5.70	0.019	
830427	0910		18040	0.002<T	0.003<	8.43	0.2<T	0.056	14.900	12.80	0.004	
830525	1210		18052	0.006	0.003<	8.15	0.2<T	0.031	2.970	2.60	0.001<	
830622	1155		18064	0.008	0.003	7.97	1.2	0.046	3.420	2.00	0.003	
830725	1110		18076	0.008	0.003<	7.59	0.2<W	0.040	1.990	1.18	0.002	
830830	1200		18088	0.092	0.003<	7.56	0.2<W	0.039	2.580	2.40	0.008	
830926	1415		18100	0.102	0.003<	7.93	0.2<W	0.053	2.600	1.60	0.003	
831025	1200		18112	0.092	0.003<	8.17	0.2<W	0.049	2.090	4.00	0.004	
831121	1310		18124	0.034	0.004	7.97	0.2<W	0.031	7.640	6.00	0.005	

(CONTD)

1983 WATER QUALITY DATA REGION 4

122

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: ST. PATRICK STREET BRIDGE OTTAWA
 STATION TYPE: RIVER FLOW GAUGE FED 02LA004

STATION ID: 18-0033-034-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 26 13.88 LONG: 075 40 44.00 U T M: 18 0446900.0 5031525.0 4 REGION: 04 DISTANCE: 1.609

*INTERIM TEST-NAME:		FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
SAMPLE DATE YYMMDD	TEST-NAME HOUR LMT	SAMPLE NUMBER DEG.C	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PH	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	RESIDUE PARTIC. MG/L	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
	MAXIMUM	25.0	0.102	0.013	8.43	1.2	0.205	14.900	61.00	0.032
	ARITH MEAN	12.5	0.035<A	0.007	8.02	0.4<A	0.068	5.456	11.48	0.011
	GEOM MEAN	8.5	0.017<A		8.02	0.3<A	0.057	3.963	5.15	
	MINIMUM	1.5	0.002	0.003	7.56	0.2	0.031	1.990	1.18	0.002
	STD DEV (GEOM %)	9.1	0.040<A		8.28	0.3<A	0.051	5.096	18.08	
#	SAMP IN STATISTICS	10	11	4	11	11	11	10	11	10
%	SAMP (EXCLUDED)			63						9

B.O.W./ SITE: RIDEAU RIVER
SAMPLE POINT: AT NICOLSON'S LOCK ANDREWSVILLE
STATION TYPE: RIVER

STATION ID: 18-0033-035-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: RIDEAU RIVER

STORET CODE: 02
006
1710

LAT: 44 57 03.04 LONG: 075 49 12.65 U T M: 18 0435300.0 4977600.0 4 REGION: 04 DISTANCE: 73.545

*=INTERIM	TEST-NAME:	FWSADP	FMDPTS	FGPROJ	ALKT	ASUT	BOD5	CLIDUR	COND25	CUUT	DO	
SAMPLE DATE YYMMDD	HOUR LHT	SAMPLE NUMBER	SAMPLE DEPTH M	WATER DEPTH M	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CACO3	ARSENIC UNF. TOT. MG/L AS AS	BOD 5 DAY TOT. DEM. MG/L AS O	CHLORIDE UNF. REAC MG/L AS CL-	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF. TOT. MG/L AS CU	DISSOLVED OXYGEN MG/L AS O
830119	1040	18008	0.30	0.30	0101	115.0	0.001<			265.0	0.006	14.00
830216	1025	18020	0.30		0101	113.0	0.001<			262.0	0.003	11.20
830317	1020	18032	0.30		0101	128.9	0.001<			280.0	0.007	12.00
830428	1030	18044	0.30		0101	113.0	0.001<			247.0	0.006	11.10
830526	1045	18056	0.30		0101	117.1	0.001<			250.0	0.004	9.40
830628	1015	18068	0.30		0101	103.7	0.001<			230.0	0.001	7.00
830725	1605	18080	0.30		0101	72.4	0.001			176.0	0.001	6.90
830830	1600	18092	0.30		0101	75.7	0.001<			173.0	0.045	7.00
830927	1045	18104	0.30		0101	84.3	0.001			192.0	0.001	9.40
831025	1515	18116	0.30		0101	99.5	0.001<			227.0	0.002	10.90
831026	0835	18117	0.30		0101	89.2		0.92	6.69	214.0	0.001	10.60
831122	0950	18128	0.30		0101	115.7	0.001<			320.0	0.002	12.60
		MAXIMUM	0.30	0.30		128.9	0.001	0.92	6.69	320.0	0.045	14.00
		ARITH MEAN	0.30	0.30		102.3	0.001	0.92	6.69	236.3	0.007	10.17
		GEOM MEAN				100.7				232.6	0.003	9.92
		MINIMUM	0.30	0.30		72.4	0.001	0.92	6.69	173.0	0.001	6.90
		STD DEV (GEOM *)				18.1				43.6	0.012	2.31
# SAMP IN STATISTICS		12		1		12	2	1	1	12	12	12
% SAMP (EXCLUDED)							81					

*INTERIM		TEST-NAME:	FCMF FECAL COLIFORM	FEUT IRON TOT.	FSMF FECAL STREPCUS	FWSTRC	FWTEMP	NIUT NICKEL	NNHTFR NH3-N TOTAL	PBUT LEAD	PH	PHNOL PHENOLS
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	MF CNT /100ML	UNF.TOT. MG/L AS FE	MF CNT /100ML	STREAM COND.	WATER TEMP DEG.C	UNF.TOT. MG/L AS NI	FIL.REAC MG/L AS N	UNF.TOT. MG/L AS PB	PH	UNF-REAC UG/L PHENOL
830119	1040	18008		0.075		6 8		0.002<		0.003<	8.26	0.6<T
830216	1025	18020		0.160		6 8	1.0	0.002<		0.003<	7.86	
830317	1020	18032		0.095		6 3	3.5	0.001		0.004	8.39	0.2<W
830428	1030	18044		0.105		6 8	10.0	0.002<		0.003<	8.00	0.2<W
830526	1045	18056		0.125			15.0	0.002<		0.003<	8.20	0.2<T
830628	1015	18068		0.140		5 8	25.5	0.002<		0.003<	8.22	0.8
830725	1605	18080		0.040<T		5 8	24.0	0.002		0.003<	7.99	0.2<T
830830	1600	18092		0.045		5 8	23.0	0.002<		0.003<	8.46	0.2<T
830927	1045	18104		0.045		5 8	15.5	0.002<		0.003<	8.34	0.2<W
831025	1515	18116		0.070		6 8	8.0	0.002<		0.003<	7.94	0.2<W
831026	0835	18117	10<=>		10<	6 8	7.5		0.066	0.003<	8.10	
831122	0950	18128		0.085		6 8	2.0	0.002<		0.003<	7.82	0.2<W

(C O N T D)

1983 WATER QUALITY DATA REGION 4

124

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT NICOLSON'S LOCK ANDREWSVILLE
 STATION TYPE: RIVER

STATION ID: 18-0033-035-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 44 57 03.04 LONG: 075 49 12.65 U T M: 18 0435300.0 4977600.0 4 REGION: 04 DISTANCE: 73.545

*INTERIM TEST-NAME:		FCMF FECAL COLIFORM MF CNT /100ML	FEUT IRON UNF.TOT. MG/L AS FE	FSMF FECAL STREPCUS MF CNT /100ML	FWSTRC STREAM COND.	FWTEMP WATER TEMP DEG.C	NIUT NICKEL UNF.TOT. MG/L AS NI	NNHTFR NH3-N TOTAL FIL.REAC MG/L AS N	PBUT LEAD UNF.TOT. MG/L AS PB	PH PH	PHNOL PHENOLS UNF-REAC UG/L PHENOL
MAXIMUM		10	0.160			25.5	0.002	0.066	0.004	8.46	0.8
ARITH MEAN		10	0.090<A			12.3	0.001	0.066	0.004	8.13	0.3<A
GEOM MEAN			0.081<A			8.3				8.13	0.3<A
MINIMUM		10	0.040			1.0	0.001	0.066	0.004	7.82	0.2
STD DEV (GEOM *)			0.040<A			9.0				0.21	0.2<A
# SAMP IN STATISTICS		1	11			11	2	1	1	12	10
% SAMP (EXCLUDED)							81		91		
*INTERIM TEST-NAME:		PPUT PHOSPHOR UNF.TOT. MG/L AS P	TCMF COLIFORM TOTAL MF CNT /100ML	TCMFBK COLIFORM TOTAL MF BCKGRD CNT /100ML	TURB TURB*ITY FTU	ZNUT ZINC UNF.TOT. MG/L AS ZN					
SAMPLE DATE HOUR YYMMDD LMT	SAMPLE NUMBER										
830119 1040	18008	0.018			1.30	0.002					
830216 1025	18020	0.024			1.32	0.003					
830317 1020	18032	0.022			1.21	0.009					
830428 1030	18044	0.026			1.80	0.004					
830526 1045	18056	0.036			2.30	0.001					
830628 1015	18068	0.058			1.20	0.002					
830725 1605	18080	0.046			2.50	0.001					
830830 1600	18092	0.040			1.20	0.016					
830927 1045	18104	0.044			1.20	0.001					
831025 1515	18116	0.040			1.28	0.003					
831026 0835	18117	0.030	20<=>	2400	1.44	0.008					
831122 0950	18128	0.019			2.20	0.002					
MAXIMUM		0.058	20	2400	2.50	0.016					
ARITH MEAN		0.034	20	2400	1.58	0.004					
GEOM MEAN		0.031			1.52	0.003					
MINIMUM		0.018	20	2400	1.20	0.001					
STD DEV (GEOM *)		0.012			0.49	0.005					
# SAMP IN STATISTICS		12	1	1	12	12					
% SAMP (EXCLUDED)											

1983 WATER QUALITY DATA REGION 4

125

B.O.W./ SITE: JOCK RIVER
 SAMPLE POINT: AT HOODIE DRIVE BRIDGE
 STATION TYPE: RIVER FLOW GAUGE FED 02LA007

STATION ID: 18-0033-036-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 14 58.06 LONG: 075 47 28.81 U T M: 18 0437900.0 5010750.0 4 REGION: 04 DISTANCE: 33.313

*=INTERIM TEST-NAME:		FMSADP	FMDPTS	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW
					ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM
SAMPLE		SAMPLE	WATER	PROJECT	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	FLOW
DATE	HR	NUMBER	DEPTH	SUB-PROJ	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3
YYMMDD	LMT		M	CODE	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S
830118	1455	18001	0.30	0101	212.9	0.001<	463.0	0.003	7.20	0.275	3.260
830215	1445	18013	0.30	0101	245.1	0.001<	497.0	0.003	5.00	0.740	1.380
830316	1050	18025	0.30	0101	132.2	0.001<	305.0	0.007	13.00	0.530	23.400
830427	1105	18037	0.30	0101	174.0	0.001<	383.0	0.001<	10.70	0.325	22.600
830525	0945	18049	0.30	0101	176.5	0.001<	363.0	0.006	8.20	0.365	5.980
830622	0955	18061	0.30	0101	188.5	0.001	399.0	0.006	7.40	0.205	0.466
830725	0910	18073	0.30	0101	194.6	0.001	448.0	0.007	8.00	0.130	0.111
830926	1550	18097	0.30	0101	193.1	0.001	474.0	0.002	7.80	0.140	0.057
831025	1015	18109	0.30	0101	182.5	0.001<	490.0	0.003	11.20	0.170	0.579
831121	1125	18121	0.30	0101	144.2	0.001<	406.0	0.001	12.00	0.145	11.200
MAXIMUM		0.30	0.30		245.1	0.001	497.0	0.007	13.00	0.740	23.400
ARITH MEAN		0.30	0.30		184.4	0.001	422.8	0.004	9.05	0.302	6.903
GEOM MEAN					181.8		418.4		8.72	0.255	1.752
MINIMUM		0.30	0.30		132.2	0.001	305.0	0.001	5.00	0.130	0.057
STD DEV (GEOM *)					32.0		62.2		2.53	0.199	9.166
# SAMP IN STATISTICS		10	1		10	3	10	9	10	10	10
% SAMP (EXCLUDED)						70		10			

*=INTERIM TEST-NAME:		FWSTRC	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
				NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE			WATER	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
DATE	HR	NUMBER	TEMP	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L
YYMMDD	LMT		DEG.C	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
830118	1455	18001	6.8	0.002<	0.003<	8.07	0.2<T	0.104	4.40	0.004
830215	1445	18013	6.4	0.002<	0.003<	7.75	0.2<W	0.051	4.50	0.013
830316	1050	18025	6.3	0.002	0.004	8.25	0.4<T	0.099	6.10	0.004
830427	1105	18037	6.3	0.002<	0.003<	8.48	0.2<W	0.029	5.20	0.004
830525	0945	18049	5.8	0.002<	0.003<	8.24	0.2<T	0.280	2.70	0.002
830622	0955	18061	5.8	0.002<	0.003<	8.08	0.6<T	0.052	4.00	0.002
830725	0910	18073	5.8	0.002<	0.003<	8.75	0.2<W	0.040	2.50	0.003
830926	1550	18097	5.8	0.002<	0.003<	7.96	0.2<W	0.043	2.30	0.003
831025	1015	18109	6.8	0.004	0.003<	8.27	0.2<W	0.043	3.50	0.005
831121	1125	18121	3	0.002	0.003<	7.78	0.2<W	0.021	3.10	0.003
MAXIMUM			25.0	0.004	0.004	8.75	0.6	0.280	6.10	0.013
ARITH MEAN			10.9	0.003	0.004	8.16	0.3<A	0.076	3.83	0.004
GEOM MEAN			7.1			8.16	0.2<A	0.057	3.65	0.004
MINIMUM			1.5	0.002	0.004	7.75	0.2	0.021	2.30	0.002
STD DEV (GEOM *)			8.8			0.31	0.1<A	0.077	1.24	0.003
# SAMP IN STATISTICS			9	3	1	10	10	10	10	10
% SAMP (EXCLUDED)				70	90					

1983 WATER QUALITY DATA REGION 4

126

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT LONG ISLAND GAUGING STATION
 STATION TYPE: RIVER FLOW GAUGE FED 02LA012

STATION ID: 18-0033-037-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 14 55.22 LONG: 075 42 19.12 U T M: 18 0444650.0 5010600.0 4 REGION: 04 DISTANCE: 25.910

*INTERIM TEST-NAME:		FWSADP	FWDPTS	FGPROJ	ALKT	COND25	CUUT	DO	FWFLOW	FWSTRC	FWTEMP
SAMPLE DATE	TIME	SAMPLE DEPTH	WATER DEPTH	PROJECT SUB-PROJ	ALK TOTAL	CONDUCT. 25C	COPPER UNF. TOT.	DISOLVED OXYGEN	STREAM FLOW	STREAM COND.	WATER TEMP
YYMMDD	LMT	NUMBER	M	CODE	MG/L AS CAC03	UMHO/CM AT 25 C	MG/L AS CU	MG/L AS O	M3 /S		DEG.C
830118	1035	18005	0.30	0101	134.6	304.0	0.004	13.60	34.700	6 8	
830215	0950	18017	0.30	0101	125.7	286.0	0.001	15.80	12.900	6 8	1.5
830316	1510	18029	0.30	0101	127.9	281.0	0.006		18.500	6 3	2.0
830427	0810	18041	0.30	0101	136.6	299.0	0.003	11.40	58.600	6 3	7.0
830525	1335	18053	0.30	0101	135.8	283.0	0.003		28.300	5 8	16.5
830622	1330	18065	0.30	0101	125.3	266.0	0.003	7.60	6.960	5 8	26.0
830725	1200	18077	0.30	0101	106.3	241.0	0.004	8.40	4.500	5 8	24.0
830830	1310	18089	0.30	0101	94.5	206.0	0.007	7.20	6.500	5 8	22.5
830926	1230	18101	0.30	0101	98.1	217.0	0.001	8.40	7.420	5 8	16.5
831025	1245	18113	0.30	0101	97.6	226.0	0.001	11.00	11.100	6 8	9.0
831121	1400	18125	0.30	0101	120.4	327.0	0.002	12.90	35.900		2.0
		MAXIMUM	0.30		136.6	327.0	0.007	15.80	58.600		26.0
		ARITH MEAN	0.30		118.4	266.9	0.003	10.70	20.489		12.7
		GEOM MEAN			117.4	264.2	0.003	10.33	14.938		8.2
		MINIMUM	0.30		94.5	206.0	0.001	7.20	4.500		1.5
		STD DEV (GEOM #)			16.3	39.2	0.002	3.01	17.052		9.6
		# SAMP IN STATISTICS	11	1	11	11	11	9	11		10
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	TIME	LEAD UNF. TOT.		PHENOLS UNF-REAC	PHOSPHOR UNF. TOT.	TURB.ITY	ZINC UNF. TOT.
YYMMDD	LMT	MG/L AS PB	PH	UG/L PHENOL	MG/L AS P	FTU	MG/L AS ZN
830118	1035	0.003<	8.16	0.4<T	0.092	1.70	0.001
830215	0950	0.003<	7.91	0.6<T	0.025	1.80	0.003
830316	1510	0.006	8.38	0.2<T	0.035	2.50	0.007
830427	0810	0.003<	8.50	0.2<W	0.157	7.90	0.004
830525	1335	0.003<	8.17	0.6<T	0.034	2.60	0.001
830622	1330	0.003<	7.54	1.0	0.036	1.10	0.017
830725	1200	0.003<	7.65	0.2<W		1.25	0.004
830830	1310	0.003<	8.00	0.2<W	0.059	7.60	0.030
830926	1230	0.003<	7.88	0.2<W	0.065	5.90	0.004
831025	1245	0.003<	8.16	0.2<W	0.040	1.50	0.002
831121	1400	0.003<	7.72	0.2<W	0.028	3.30	0.000

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

127

B.O.W./ SITE: RIDEAU RIVER
 SAMPLE POINT: AT LONG ISLAND GAUGING STATION
 STATION TYPE: RIVER FLOW GAUGE FED 02LA012

STATION ID: 18-0033-037-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: RIDEAU RIVER

STORET CODE: 02
 006
 1710

LAT: 45 14 55.22 LONG: 075 42 19.12 U T M: 18 0444650.0 5010600.0 4 REGION: 04 DISTANCE: 25.910

*=INTERIM TEST-NAME:		PBUT	PH	PHNOL	PPUT	TURB	ZNUT	
		LEAD		PHENOLS	PHOSPHOR		ZINC	
SAMPLE		UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.	
DATE	HR	MG/L		UG/L	MG/L	TURB*ITY	MG/L	
YYMMDD	LMT	AS PB	PH	PHENOL	AS P	FTU	AS ZN	
		MAXIMUM	0.006	8.50	1.0	0.157	7.90	0.030
		ARITH MEAN	0.006	8.01	0.4<A	0.057	3.38	0.007
		GEOM MEAN		8.00	0.3<A	0.048	2.66	
		MINIMUM	0.006	7.54	0.2	0.025	1.10	0.000
		STD DEV (GEOM #)		0.30	0.3<A	0.041	2.54	
		# SAMP IN STATISTICS	1	11	11	10	11	11
		% SAMP (EXCLUDED)	90					

1983 WATER QUALITY DATA REGION 4

128

B.O.W./ SITE: SOUTH NATION RIVER
 SAMPLE POINT: HIGHWAY 17 PLANTAGENET
 STATION TYPE: RIVER FLOW GAUGE FED 02LB005

STATION ID: 18-2070-020-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 33 33.68 LONG: 075 03 50.63

U T M: 18 0495000.0 5044875.0 4

REGION: 04

DISTANCE: 10.300

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
DATE HOUR		SAMPLE	SAMPLE	PROJECT	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM	
YYMMDD LMT		NUMBER	DEPTH	SUB-PROJ	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	FLOW	
			M	CODE	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3	STREAM
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S	COND.
830112	0830	15325	0.30	0101	124.8		0.027	13.00	5.000	229.000	8
830214	1030	15326	0.30	0101	83.7	0.001<	0.081	12.00	0.850	13.900	4
830308	1000	15327	0.30	0101	119.8		0.010	11.00	2.050	101.000	4
830411	1030	15328	0.30	0101	135.0		0.094	12.00	4.175	234.000	3
830502	1330	15329	0.30	0101	158.3		0.006	10.00	5.350	168.000	3
830613		15330	0.30	0101				11.00		13.700	8
830711	1145	15331	0.30	0101	179.7		0.009	9.00	0.815	2.030	8
830815	1130	15332	0.30	0101	194.7		0.210	10.00	1.950	1.350	8
830906	1330	15333	0.30	0101	107.6		0.003	10.00	0.550	1.150	8
831024	1030	15334	0.30	0101	223.6	2030.0	0.130	11.00	2.625	2.630	8
831107	1300	15335	0.30	0101	241.9	444.0	0.004	10.00	3.250	94.200	8
831213	1230	15336	0.30	0101	150.4	496.0	0.100	10.00	0.700	87.400	4
MAXIMUM			0.30		241.9	2030.0	0.210	13.00	5.350	234.000	
ARITH MEAN			0.30		156.3	595.2	0.061	10.75	2.483	79.030	
GEOM MEAN					149.3	489.8	0.026	10.70	1.876	21.846	
MINIMUM			0.30		83.7	306.0	0.003	9.00	0.550	1.150	
STD DEV (GEOM *)					49.3	512.5	0.068	1.14	1.757	89.229	
# SAMP IN STATISTICS		12			11	11	11	12	11	12	
% SAMP (EXCLUDED)											
*INTERIM TEST-NAME:		FWTEMP	NIUT	NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
DATE HOUR		SAMPLE	NICKEL	TOTAL	LEAD		PHENOLS	PHOSPHOR			ZINC
YYMMDD LMT		NUMBER	UNF. TOT.	FIL. REAC	UNF. TOT.		UNF-REAC	UNF. TOT.	RESIDUE	TURB'ITY	UNF. TOT.
			MG/L	MG/L	MG/L		UG/L	MG/L	PARTIC.	FTU	MG/L
			AS NI	AS N	AS PB	PH	PHENOL	AS P	MG/L		AS ZN
830112	0830	15325	2.0	0.004<T	0.003<	8.05	1.0	0.265	110.000	78.00	0.025
830214	1030	15326	2.0	0.002<	0.003<	7.38	0.8	0.070		12.00	0.027
830308	1000	15327	2.0	0.006	0.009	7.29	2.2	0.242	21.400	28.00	0.023
830411	1030	15328	6.0	0.008	0.004	7.57	0.2<T	0.193	77.400	72.00	0.048
830502	1330	15329	12.0	0.008	0.003<	7.93	1.2	0.183	53.200	68.00	0.001<
830613		15330	19.0								
830711	1145	15331	22.0	0.004<T	0.003<	7.98	0.2<W	0.110	15.100	18.00	0.001
830815	1130	15332	24.0	0.006	0.007	8.13	0.2<W	0.102	28.000	34.00	0.041
830906	1330	15333	22.0	0.108	0.003<	9.00	0.2<W	0.053	12.200	8.60	0.001
831024	1030	15334	9.0	0.440	0.003<	7.67	0.2<W	0.215	30.000	52.00	0.053
831107	1300	15335	7.0	0.008	0.003<	7.74	0.6<T	0.192	34.500	59.00	0.010
831213	1230	15336	2.0	0.142	0.003<	8.38	0.4<T	0.063	10.300	17.00	0.031

(CONT'D)

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1983 WATER QUALITY DATA REGION 4

129

B.O.W./ SITE: SOUTH NATION RIVER
 SAMPLE POINT: HIGHWAY 17 PLANTAGENET
 STATION TYPE: RIVER FLOW GAUGE FED 02LB005

STATION ID: 18-2070-020-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 33 33.68 LONG: 075 03 50.63 U T M: 18 0495000.0 5044875.0 4 REGION: 04 DISTANCE: 10.300

*=INTERIM	TEST-NAME:	FWTEMP	NIUT	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
SAMPLE DATE YYMMDD	HOUR LMT	SAMPLE NUMBER	WATER TEMP DEG.C	NICKEL UNF.TOT. MG/L AS NI	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	RESIDUE PARTIC. MG/L	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
		MAXIMUM	24.0		0.440	0.009	9.00	2.2	0.265	110.000	0.053
		ARITH MEAN	10.7		0.073<A	0.007	7.92	0.7<A	0.153	39.210	0.026
		GEOM MEAN	7.1		0.017<A		7.91	0.5<A	0.134	29.694	31.93
		MINIMUM	2.0		0.004	0.004	7.29	0.2	0.053	10.300	8.60
		STD DEV (GEOM *)	8.8		0.138<A		0.48	0.6<A	0.076	32.252	25.92
		# SAMP IN STATISTICS	12		10	3	11	11	11	10	10
		% SAMP (EXCLUDED)				72					9

1983 WATER QUALITY DATA REGION 4

130

B.O.W./ SITE: SCOTCH RIVER EAST
 SAMPLE POINT: AT CONC.17 DOWNSTREAM FROM ST.ISIDORE
 STATION TYPE: RIVER FLOW GAUGE FED 02LB012

STATION ID: 18-2070-040-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 22 58.53 LONG: 074 55 31.00 U T M: 18 0505850.0 5025275.0 4 REGION: 04 DISTANCE: 48.601

*INTERIM TEST-NAME:			FMSADP	FMDPTS	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FCMF
							BOD					FECAL
						ALK	5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	COLIFORM
						TOTAL	TOT.DEM.	UNF.REAC	25C	UNF.TOT.	OXYGEN	MF
						MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	CNT
						AS CAC03	AS O	AS CL-	AT 25 C	AS CU	AS O	/100ML
SAMPLE	DATE	TIME	SAMPLE	DEPTH	PROJECT							
YYMMDD	LMT	NUMBER	DEPTH	DEPTH	SUB-PROJ							
			M	M	CODE							
830125	1000	15438	0.30		0101	218.5	1.32	27.30	553.0	0.008	12.00	40<=>
830225	1400	15379	0.30		0101	138.8	5.46	21.60	397.0	0.005	9.00	
830325	0945	15382	0.30		0101	174.8	0.63	17.50	429.0		10.00	
830503	1040	15387	0.30		0101	127.6	1.31	7.49	302.0	0.022	9.00	
830524	1015	15392	0.30		0101	191.9	1.93	17.30	446.0	0.005	7.00	
830621	1000	15397	0.30		0101	226.5	5.17	39.30	589.0	0.012	8.00	
830720		15404	0.30	0.30	0101	203.3		57.60	594.0	0.005	7.00	
830830	1000	15407	0.30		0101	250.1	2.06	49.50	942.0	0.005	5.00	1140
831004	1200	15411	0.30			245.0	1.38	154.00	927.0	0.009	6.00	
831124	0930	15417	0.30		0101	142.6	1.64	16.55	456.0	0.005	13.00	
		MAXIMUM	0.30	0.30		250.1	5.46	154.00	942.0	0.022	13.00	1140
		ARITH MEAN	0.30	0.30		191.9	2.32	40.81	563.5	0.008	8.60	590
		GEOM MEAN				187.0	1.87	28.72	530.6	0.007	8.26	214
		MINIMUM	0.30	0.30		127.6	0.63	7.49	302.0	0.005	5.00	40
		STD DEV (GEOM *)				44.6	1.75	42.84	215.2	0.006	2.55	11*
		# SAMP IN STATISTICS	10	1		10	9	10	10	9	10	2
		% SAMP (EXCLUDED)										
*INTERIM TEST-NAME:			FMSF	FWFLOW	FWSTRC	FWTEMP	NNHTFR	PBUT	PH	PPUT	TCMF	TCMFBK
			FECAL				NH3-N				COLIFORM	COLIFORM
			STREPCUS	STREAM			TOTAL	LEAD			TOTAL	TOTAL MF
			MF	FLOW			FIL.REAC	UNF.TOT.		PHOSPHOR	MF	BCKGRD
			CNT	M3	STREAM	WATER	MG/L	MG/L		UNF.TOT.	CNT	CNT
			/100ML	/S	COND.	TEMP	AS N	AS PB	PH	AS P	/100ML	/100ML
SAMPLE	DATE	TIME	SAMPLE			DEG.C						
YYMMDD	LMT	NUMBER	NUMBER									
830125	1000	15438	30<=>		4	3.0	0.018	0.005	7.93	0.104	2200	13000
830225	1400	15379			4	2.0	0.014	0.003<	7.49	0.210		
830325	0945	15382		0.986	8	2.0	0.010		8.35	0.093		
830503	1040	15387		10.300	3	12.0	0.020U	0.004	7.91	1.070		
830524	1015	15392		0.721	8	15.0	0.008	0.003<	8.16	0.132		
830621	1000	15397		0.065	7	25.0	0.008	0.004	7.87	0.395		
830720		15404		0.013	7	25.0	0.008	0.003<	7.99	0.220		
830830	1000	15407		0.000	7	22.0	0.012	0.009	8.32	0.250	3500<=>	220000
831004	1200	15411		0.000	7	15.0	0.216	0.003	8.15	0.205		
831124	0930	15417		2.610	8	5.0	0.072	0.003<	7.98	0.130		

(CONTD)

1983 WATER QUALITY DATA REGION 4

131

B.O.W./ SITE: SCOTCH RIVER EAST
 SAMPLE POINT: AT CONC.17 DOWNSTREAM FROM ST.ISIDORE
 STATION TYPE: RIVER FLOW GAUGE FED 02LB012

STATION ID: 18-2070-040-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 22 58.53 LONG: 074 55 31.00 U T M: 18 0505850.0 5025275.0 4 REGION: 04 DISTANCE: 48.601

*=-INTERIM TEST-NAME:		FSMF	FNFLOW	FWSTRC	FWTEMP	NNHTR	PBUT	PH	PPUT	TCMF	TCMFBK
		FECAL				NH3-N				COLIFORM	COLIFORM
		STREPCUS	STREAM			TOTAL	LEAD		PHOSPHOR	TOTAL	TOTAL MF
SAMPLE		MF	FLOW		WATER	FIL.REAC	UNF.TOT.		UNF.TOT.	MF	BCKGRD
DATE	HR	CNT	M3	STREAM	TEMP	MG/L	MG/L		MG/L	CNT	CNT
YYMMDD	LMT	NUMBER	/S	COND.	DEG.C	AS N	AS PB	PH	AS P	/100ML	/100ML
		MAXIMUM	30	10.300	25.0	0.216	0.009	8.35	1.070	3500	220000
		ARITH MEAN	30	1.837	12.6	0.039	0.005	8.01	0.281	2850	116500
		GEOM MEAN			8.6	0.019		8.01	0.210	2775	53479
		MINIMUM	30	0.000	2.0	0.008	0.003	7.49	0.093	2200	13000
		STD DEV (GEOM *)			9.3	0.065		0.25	0.291	1*	7*
		# SAMP IN STATISTICS	1	8	10	10	5	10	10	2	2
		% SAMP (EXCLUDED)					44				

*=-INTERIM TEST-NAME:		TURB	ZNUT
			ZINC
			UNF.TOT.
SAMPLE			MG/L
DATE	HR	TURB'ITY	AS ZN
YYMMDD	LMT	FTU	
830125	1000	15438	42.00
830225	1400	15379	33.00
830325	0945	15382	27.00
830503	1040	15387	0.076
830524	1015	15392	0.010
830621	1000	15397	0.040
830720		15404	0.019
830830	1000	15407	0.008
831004	1200	15411	0.019
831124	0930	15417	0.009
		MAXIMUM	79.00
		ARITH MEAN	53.33
		GEOM MEAN	49.87
		MINIMUM	27.00
		STD DEV (GEOM *)	19.86
		# SAMP IN STATISTICS	9
		% SAMP (EXCLUDED)	9

1983 WATER QUALITY DATA REGION 4

132

B.O.W./ SITE: SCOTCH RIVER EAST
 SAMPLE POINT: AT CONC.19 UPSTREAM FROM ST.ISIDORE
 STATION TYPE: RIVER

STATION ID: 18-2070-060-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 22 26.89 LONG: 074 54 28.98 U T M: 18 0507200.0 5024300.0 4 REGION: 04 DISTANCE: 51.015

*=INTERIM	TEST-NAME:	FNSADP	FWDPTS	FGPROJ	ALK	ASUT	COND25	CUUT	DO	FEUT	FWSTRC
SAMPLE		SAMPLE	WATER	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	
DATE HOUR	SAMPLE	DEPTH	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM
YYMMDD LMT	NUMBER	M	M	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.
					AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	
830207	15437	0.30		0101	185.5	0.001<	414.0	0.010	5.00	1.425	4
830225 1300	15377	0.30		0101	181.6	0.001<	411.0	0.003	12.00	0.775	4
830325 0900	15381	0.30		0101	147.3		321.0		14.00	0.915	8
830503 1000	15386	0.30		0101	126.0	0.001<	260.0	0.010	10.00		3
830524 0930	15391	0.30		0101	179.0	0.001<	360.0	0.003	9.00	0.880	8
830621 0930	15396	0.30		0101	203.6	0.001	404.0	0.003	11.00	0.550	5
830720 1140	15403	0.30	0.30	0101	226.0	0.001	514.0	0.006	10.00	2.400	8
830830 0900	15406	0.30		0101	431.4	0.001<	1033.0	0.008	6.00	3.250	5
831004 1130	15412	0.30		0101	442.4	0.001	1018.0	0.006	4.00	4.350	5
831124 0845	15416	0.30		0101	121.0	0.001<	358.0	0.004	11.00	1.100	8
	MAXIMUM	0.30	0.30		442.4	0.001	1033.0	0.010	14.00	4.350	
	ARITH MEAN	0.30	0.30		224.4	0.001	509.3	0.006	9.20	1.738	
	GEOM MEAN				203.0		457.3	0.005	8.59	1.381	
	MINIMUM	0.30	0.30		121.0	0.001	260.0	0.003	4.00	0.550	
	STD DEV (GEOM *)				116.7		280.0	0.003	3.22	1.314	
	# SAMP IN STATISTICS	10	1		10	3	10	9	10	9	
	% SAMP (EXCLUDED)					66					

*=INTERIM	TEST-NAME:	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE		WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
DATE HOUR	SAMPLE	TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
YYMMDD LMT	NUMBER	DEG.C	MG/L	MG/L		UG/L	MG/L	TURB*ITY	MG/L
			AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
830207	15437	2.0	0.003	0.004	7.83	0.2<W	0.096	22.00	0.017
830225 1300	15377	2.0	0.002<	0.003<	7.73		0.148	14.00	0.025
830325 0900	15381	3.0			7.86		0.067	13.80	
830503 1000	15386	12.0	0.010	0.004	7.88	0.2<W	0.335	128.00	0.035
830524 0930	15391	15.0	0.002<	0.003<	8.20		0.070	13.70	0.003
830621 0930	15396	22.0	0.003	0.003<	7.79	0.2<T	0.188		0.006
830720 1140	15403	22.0	0.005	0.003<	8.09		0.780		0.012
830830 0900	15406	17.0	0.003	0.004	8.33	0.2<W	0.530	64.00	0.027
831004 1130	15412	13.0	0.002<	0.003<	7.84	0.2<W	0.975	41.00	0.011
831124 0845	15416	5.0	0.002<	0.003<	8.05	0.2<W	0.065	17.00	0.006
	MAXIMUM	22.0	0.010	0.004	8.33	0.2	0.975	128.00	0.035
	ARITH MEAN	11.3	0.005	0.004	7.96	0.2<A	0.325	39.19	0.016
	GEOM MEAN	8.1			7.96	0.2<A	0.201	27.56	0.012
	MINIMUM	2.0	0.003	0.004	7.73	0.2	0.065	13.70	0.003
	STD DEV (GEOM *)	7.9			0.20	0.0<A	0.329	40.04	0.011
	# SAMP IN STATISTICS	10	5	3	10	6	10	8	9
	% SAMP (EXCLUDED)		44	66					

1983 WATER QUALITY DATA REGION 4

133

B.O.W./ SITE: SOUTH NATION RIVER
 SAMPLE POINT: AT DAM DOWNSTREAM OF CASSELMAN
 STATION TYPE: RIVER FLOW GAUGE FED 02LB013

STATION ID: 18-2070-100-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 19 06.78 LONG: 075 05 35.29 U T M: 18 0492700.0 5018125.0 4 REGION: 04 DISTANCE: 62.763

*=INTERIM		TEST-NAME:	FWSADP	FWDPTS	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FNFLOW
						ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON	STREAM
SAMPLE			SAMPLE	WATER	PROJECT	TOTAL	UNF. TOT.	25C	UNF. TOT.	OXYGEN	UNF. TOT.	FLOW
DATE	HOUR	SAMPLE	DEPTH	DEPTH	SUB-PROJ	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	M3
YYMMDD	LMT	NUMBER	M	M	CODE	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	/S
830125	1245	15441	0.30		0101	155.3	0.001<	419.0	0.001	12.00	0.520	4.890
830225	1115	15380	0.30		0101	124.3	0.001<	374.0	0.003	8.00	1.200	11.200
830325	1145	15385	0.30		0101	155.6		384.0		13.00	0.915	30.600
830503	1245	15390	0.30		0101	181.2	0.001<	435.0	0.005		4.250	174.000
830524	1130	15393	0.30		0101	214.4	0.001<	484.0	0.003	8.00	0.775	16.100
830621	1310	15400	0.30		0101	215.8	0.001<	479.0	0.004	10.00	0.195	1.950
830720	1400	15405	0.30	0.30	0101	223.2	0.001	514.0	0.003	10.00	0.225	0.753
830830	1100	15408	0.30		0101	213.2	0.001	512.0	0.002	8.00	0.215	0.495
831004	1310	15413	0.30		0101	213.3	0.001	589.0	0.004	8.00	0.295	0.159
831124	1145	15420	0.30		0101	137.6	0.001<	440.0	0.004	13.00	1.550	74.900
		MAXIMUM	0.30	0.30		223.2	0.001	589.0	0.005	13.00	4.250	174.000
		ARITH MEAN	0.30	0.30		183.4	0.001	463.0	0.003	10.00	1.014	31.505
		GEOM MEAN				179.7		458.9	0.003	9.80	0.618	5.766
		MINIMUM	0.30	0.30		124.3	0.001 *	374.0	0.001	8.00	0.195	0.159
		STD DEV (GEOM *)				37.3		65.8	0.001	2.18	1.227	55.086
		# SAMP IN STATISTICS	10	1		10	3	10	9	9	10	10
		% SAMP (EXCLUDED)					66					

*=INTERIM		TEST-NAME:	FWSTRC	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
					NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE			STREAM	WATER	UNF. TOT.	UNF. TOT.		UNF-REAC	UNF. TOT.		UNF. TOT.
DATE	HOUR	SAMPLE	COND.	TEMP	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L
YYMMDD	LMT	NUMBER		DEG.C	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
830125	1245	15441	4	2.0	0.001<	0.003<	7.69	0.2<W	0.080	9.40	0.009
830225	1115	15380	4	1.0	0.002<	0.003<	7.42		0.240	17.00	0.021
830325	1145	15385	8	2.0			7.77	0.2<W	0.090	19.00	
830503	1245	15390			0.004	0.003<	7.95		0.181	62.00	0.015
830524	1130	15393	8	15.5	0.002<	0.003<	8.22	0.4<T	0.089	16.60	0.004
830621	1310	15400	8	28.0	0.002<	0.003<	8.59	0.2<W	0.066	4.50	0.014
830720	1400	15405	7	28.0	0.002<	0.003<	8.44	-0.2<T	0.120	5.50	0.001
830830	1100	15408	7	23.0	0.002<	0.009	8.38	0.6<T	0.182	4.40	0.006
831004	1310	15413	8	17.0	0.002<	0.003<	8.16	0.2<W	0.130	5.10	0.005
831124	1145	15420	8	5.0	0.003	0.003<	7.85	0.2<W	0.143	28.00	0.008
		MAXIMUM		28.0	0.004	0.009	8.59	0.6	0.240	62.00	0.021
		ARITH MEAN		13.5	0.003	0.009	8.05	0.2<A	0.132	17.15	0.009
		GEOM MEAN		7.7			8.04		0.122	11.71	0.007
		MINIMUM		1.0	0.003	0.009	7.42	-0.2	0.066	4.40	0.001
		STD DEV (GEOM *)		11.3			0.37		0.055	17.63	0.006
		# SAMP IN STATISTICS		9	2	1	10	8	10	10	9
		% SAMP (EXCLUDED)			77	88					

1983 WATER QUALITY DATA REGION 4

134

B.O.W./ SITE: SOUTH NATION RIVER
 SAMPLE POINT: AT DAM CHESTERVILLE
 STATION TYPE: RIVER FLOW GAUGE FED 02LB009

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STATION ID: 18-2070-110-02

STORET CODE: 02
 006
 1170

LAT: 45 06 04.31 LONG: 075 13 36.74 U T M: 18 0482150.0 4994000.0 4 REGION: 04 DISTANCE: 93.339

*INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
				ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
SAMPLE DATE	HOUR	SAMPLE	SAMPLE	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	DEPTH	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
			M	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830929		15372	0.30	210.8	0.001<	526.0	0.004	11.00	0.450	1	18.0
		MAXIMUM	0.30	210.8		526.0	0.004	11.00	0.450		18.0
		ARITH MEAN	0.30	210.8		526.0	0.004	11.00	0.450		18.0
		GEOM MEAN									
		MINIMUM	0.30	210.8		526.0	0.004	11.00	0.450		18.0
		STD DEV (GEOM %)									
		# SAMP IN STATISTICS	1	1		1	1	1	1		1
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
SAMPLE DATE	HOUR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.	TURB*ITY	UNF.TOT.
YYMMDD	LMT	MG/L	MG/L	PH	UG/L	MG/L	FTU	MG/L
		AS NI	AS PB		PHENOL	AS P		AS ZN
830929		0.002	0.003<	8.42	0.2<N	0.050	4.90	0.003
		MAXIMUM		8.42	0.2	0.050	4.90	0.003
		ARITH MEAN		8.42	0.2<A	0.050	4.90	0.003
		GEOM MEAN						
		MINIMUM		8.42	0.2	0.050	4.90	0.003
		STD DEV (GEOM %)						
		# SAMP IN STATISTICS	1	1	1	1	1	1
		% SAMP (EXCLUDED)						

1983 WATER QUALITY DATA REGION 4

135

B.O.W./ SITE: CASTOR RIVER
 SAMPLE POINT: AT CONC RD.NO.5 RUSSELL TWP.
 STATION TYPE: RIVER

STATION ID: 18-2070-140-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 15 56.65 LONG: 075 18 32.78 U T M: 18 0475750.0 5012300.0 4 REGION: 04 DISTANCE: 82.396

*=INTERIM	TEST-NAME:	FWSADP	FWDPTS	FGPROJ	ALKT	COND25	CUUT	DO	FWSTRC	FWTEMP	PBUT	
SAMPLE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	
YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	
LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	LMT	
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	DEPTH	
M	M	M	M	M	M	M	M	M	M	M	M	
PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	PROJECT	
SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	SUB-PROJ	
CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	CODE	
AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	AS CAC03	
AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	AT 25 C	
AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	AS CU	
AS O	AS O	AS O	AS O	AS O	AS O	AS O	AS O	AS O	AS O	AS O	AS O	
COND.	COND.	COND.	COND.	COND.	COND.	COND.	COND.	COND.	COND.	COND.	COND.	
TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	
DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	DEG.C	
UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	UNF.TOT.	
MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	AS PB	
830125	1130	15440	0.30		0101	255.2	660.0	0.002	9.00	4	2.0	0.003<
830225	1030	15378	0.30		0101	141.7	422.0	0.009	8.00	4	1.0	0.003<
830325	1045	15383	0.30		0101	207.1	535.0		13.00	4	2.0	
830503	1205	15389	0.30		0101	186.9	463.0	0.004	10.00	3	13.0	0.003<
830524	1115	15394	0.30		0101	227.5	519.0	0.003	8.00	8	16.0	0.003<
830621	1155	15399	0.30		0101	234.8	557.0	0.003	8.00	8	27.0	0.003<
830720	0940	15401	0.30	0.30	0101	191.2	517.0	0.004	6.00	7	24.0	0.007
830830	1300	15409	0.30		0101	165.6	483.0	0.002	9.00	9	25.0	0.003<
831004	0930	15414	0.30		0101	174.6	504.0	0.010	9.00	8	17.0	0.016
831124	1115	15419	0.30		0101	153.3	501.0	0.004	15.00	8	6.0	0.003<
		MAXIMUM	0.30	0.30		255.2	660.0	0.010	15.00		27.0	0.016
		ARITH MEAN	0.30	0.30		193.8	516.1	0.005	9.50		13.3	0.011
		GEOM MEAN				190.6	512.8	0.004	9.20		8.2	
		MINIMUM	0.30	0.30		141.7	422.0	0.002	6.00		1.0	0.007
		STD DEV (GEOM #)				37.0	63.1	0.003	2.64		10.1	
		# SAMP IN STATISTICS	10	1		10	10	9	10		10	2
		% SAMP (EXCLUDED)										77

*=INTERIM	TEST-NAME:	PH	PHNOL	PPUT	TURB	ZNUT	
SAMPLE	DATE	DATE	DATE	DATE	DATE	DATE	
DATE	DATE	DATE	DATE	DATE	DATE	DATE	
YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	YHMD	
LMT	LMT	LMT	LMT	LMT	LMT	LMT	
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
PH	PH	PH	PH	PH	PH	PH	
UNF-REAC	UNF-REAC	UNF-REAC	UNF-REAC	UNF-REAC	UNF-REAC	UNF-REAC	
UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	
AS P	AS P	AS P	AS P	AS P	AS P	AS P	
FTU	FTU	FTU	FTU	FTU	FTU	FTU	
AS ZN	AS ZN	AS ZN	AS ZN	AS ZN	AS ZN	AS ZN	
830125	1130	15440	7.81	0.2<W	0.038	11.50	0.034
830225	1030	15378	7.59		0.183	15.00	0.014
830325	1045	15383	7.93		0.050	9.20	
830503	1205	15389	8.34	-0.4<T	0.127	34.00	0.011
830524	1115	15394	8.24	0.4<T	0.059	10.20	0.009
830621	1155	15399	8.16	0.2<W	0.117	17.00	0.008
830720	0940	15401	8.28	0.2<W	0.103	22.00	0.009
830830	1300	15409	8.23	0.2<T	0.063	15.00	0.003
831004	0930	15414	8.03	0.6<T	0.103	5.30	0.028
831124	1115	15419	7.95	0.2<W	0.063	13.00	0.006
		MAXIMUM	8.34	0.6	0.183	34.00	0.034
		ARITH MEAN	8.06	0.2<A	0.091	15.22	0.014
		GEOM MEAN	8.05		0.081	13.58	0.011
		MINIMUM	7.59	-0.4	0.038	5.30	0.003
		STD DEV (GEOM #)	0.24		0.044	8.03	0.010
		# SAMP IN STATISTICS	10	8	10	10	9
		% SAMP (EXCLUDED)					

1983 WATER QUALITY DATA REGION 4

136

B.O.W./ SITE: CASTOR RIVER
 SAMPLE POINT: AT CONC.RD.NO.3 RUSSELL TWP.
 STATION TYPE: RIVER FLOW GAUGE FED.02LB006

STATION ID: 18-2070-145-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 15 43.19 LONG: 075 21 22.48 U T M: 18 0472050.0 5011900.0 4 REGION: 04 DISTANCE: 85.615

*=INTERIM		TEST-NAME:	FWSADP	FWDPTS	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FCMF
						ALK	5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	FECAL
SAMPLE	DATE	TIME	SAMPLE	WATER	PROJECT	TOTAL	TOT. DEM.	UNF. REAC	25C	UNF. TOT.	OXYGEN	COLIFORM
DATE	TIME		DEPTH	DEPTH	SUB-PROJ	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MF
YYMMDD	LMT	NUMBER	M	M	CODE	AS CAC03	AS O	AS CL-	AT 25 C	AS CU	AS O	CNT
												/100ML
830125	1115	15439	0.30		0101	250.9	1.01	29.50	654.0	0.020	4.00	340
830225	1015	15376	0.30		0101	147.0	3.21	22.50	430.0	0.004	10.00	
830325	1105	15384	0.30		0101	210.9	0.45	21.20	544.0		11.00	
830503	1145	15388	0.30		0101	187.7	1.66	19.10	462.0	0.004	9.00	
830524	1400	15395	0.30		0101	228.1	1.33	19.60	517.0	0.003	11.00	
830621	1115	15398	0.30		0101	231.8	1.71	27.90	560.0	0.003	10.00	
830720	1020	15402	0.30	0.30	0101	188.8		28.30	503.0	0.110	13.00	
830830	1345	15410	0.30		0101	160.2	0.75	24.90	458.0	0.004	12.00	240
831004	1010	15415	0.30		0101	177.2	1.39	31.60	532.0	0.003	8.00	
831124	1045	15418	0.30		0101	154.7	1.16	19.60	503.0	0.003	13.00	
		MAXIMUM	0.30	0.30		250.9	3.21	31.60	654.0	0.110	13.00	340
		ARITH MEAN	0.30	0.30		193.7	1.41	24.42	516.3	0.017	10.10	290
		GEOM MEAN				190.8	1.23	24.03	513.0	0.006	9.66	286
		MINIMUM	0.30	0.30		147.0	0.45	19.10	430.0	0.003	4.00	240
		STD DEV (GEOM *)				35.5	0.79	4.64	63.3	0.035	2.69	1*
		# SAMP IN STATISTICS	10	1		10	9	10	10	9	10	2
		% SAMP (EXCLUDED)										
*=INTERIM		TEST-NAME:	FSMF	FWFLOW	FWSTRC	FWTEMP	NNHTFR	PBUT	PH	PPUT	TCHF	TCHFBK
			FECAL				NH3-N				COLIFORM	COLIFORM
SAMPLE	DATE	TIME	STREPCUS	STREAM	WATER	FIL. REAC	TOTAL	LEAD		PHOSPHOR	TOTAL	COLIFORM
DATE	TIME		MF	FLOW	TEMP	MG/L	MG/L	UNF. TOT.		UNF. TOT.	MF	TOTAL MF
YYMMDD	LMT	NUMBER	/100ML	M3	DEG.C	AS N	AS PB	AS CL-	PH	MG/L	CNT	BCKGRD
				/S						AS P	/100ML	CNT
					COND.						/100ML	/100ML
830125	1115	15439	50<=>	0.910	4	2.0	0.030	0.004	7.91	0.080	3100	18000
830225	1015	15376		2.400	4	1.0	0.010	0.003<	7.56	0.200		
830325	1105	15384		7.360	4	2.0	0.006		8.44	0.056		
830503	1145	15388		28.000	3	13.0	0.004<T	0.004	8.10	0.136		
830524	1400	15395		4.510	8	16.0	0.012	0.003<	8.38	0.039		
830621	1115	15398		0.719	8	28.0	0.008	0.003<	8.39	0.077		
830720	1020	15402		0.255	7	24.0	0.004	0.003<	8.50	0.040		
830830	1345	15410		0.160	7	24.0	0.042	0.003<	8.82	0.039	540<=>	46000
831004	1010	15415		0.165	8	16.0	0.034	0.003	8.31	0.055		
831124	1045	15418		15.900	8	6.0	0.016	0.003	7.99	0.064		

(CONT'D)

1983 WATER QUALITY DATA REGION 4

137

B.O.W./ SITE: CASTOR RIVER
 SAMPLE POINT: AT CONC.RD.NO.3 RUSSELL TWP.
 STATION TYPE: RIVER FLOW GAUGE FED.02LB006

STATION ID: 18-2070-145-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: SOUTH NATION RIVER

STORET CODE: 02
 006
 1170

LAT: 45 15 43.19 LONG: 075 21 22.48 U T M: 18 0472050.0 5011900.0 4 REGION: 04 DISTANCE: 85.615

*INTERIM TEST-NAME:		FSMF FECAL STREPCUS	FWFLOW STREAM FLOW	FMSTRC STREAM COND.	FWTEMP WATER TEMP	NNHTR NH3-N TOTAL	PBUT LEAD UNF.TOT.	PH	PPUT PHOSPHOR UNF.TOT.	TCMF COLIFORM TOTAL	TCMFBK COLIFORM TOTAL MF
SAMPLE DATE	HOUR LMT	SAMPLE NUMBER	MF CNT /100ML	M3 /S	DEG.C	MG/L AS N	MG/L AS PB	PH	MG/L AS P	CNT /100ML	CNT /100ML
MAXIMUM		50	28.000		28.0	0.042	0.004	8.82	0.200	3100	46000
ARITH MEAN		50	6.038		13.2	0.017<A	0.003	8.24	0.079	1820	32000
GEOM MEAN			1.657		8.1	0.012<A		8.23	0.068	1294	28775
MINIMUM		50	0.160		1.0	0.004	0.003	7.56	0.039	540	18000
STD DEV (GEOM *)			9.153		10.1	0.014<A		0.36	0.052	3*	2*
# SAMP IN STATISTICS		1	10		10	10	4	10	10	2	2
% SAMP (EXCLUDED)							55				

*INTERIM TEST-NAME:		TURB	ZNUT ZINC UNF.TOT.
SAMPLE DATE	HOUR LMT	SAMPLE NUMBER	TURB'ITY FTU
830125	1115	15439	33.00
830225	1015	15376	14.00
830325	1105	15384	13.00
830503	1145	15388	43.00
830524	1400	15395	8.10
830621	1115	15398	4.00
830720	1020	15402	3.10
830830	1345	15410	1.28
831004	1010	15415	1.40
831124	1045	15418	17.00
MAXIMUM		43.00	0.058
ARITH MEAN		13.79	0.014
GEOM MEAN		7.76	0.008
MINIMUM		1.28	0.001
STD DEV (GEOM *)		14.09	0.018
# SAMP IN STATISTICS		10	9
% SAMP (EXCLUDED)			

1983 WATER QUALITY DATA REGION 4

138

B.O.W./ SITE: CARP RIVER
 SAMPLE POINT: FIRST ROAD BRIDGE DNSTR OF CARP
 STATION TYPE: RIVER

STATION ID: 18-3370-101-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: CARP RIVER

STORET CODE: 02
 006
 2490

LAT: 45 21 04.64 LONG: 076 03 20.62 U T M: 18 0417300.0 5022300.0 4 REGION: 04 DISTANCE: 21.440

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FWSTRC	FWTEMP
				ALK	5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED		
				TOTAL	TOT.DEM.	UNF.REAC	25C	UNF.TOT.	OXYGEN		
SAMPLE	DATE	NUMBER	DEPTH	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	COND.	WATER
YYMMDD	HOUR		M	AS CAC03	AS O	AS CL-	AT 25 C	AS CU	AS O		TEMP
	LMT										DEG.C
830316	0945	16436	0.30	106.1	2.80	24.30	309.0	0.002	10.00	5	3.0
830330	0900	16449	0.30	209.2	1.19	72.50	644.0	0.001	12.00	5	1.0
830530	1410	16462	0.30	204.6	1.09	37.00	506.0	0.004	10.00	5 9	16.0
830622	1345	16475	0.30	193.4	1.53	58.00	568.0	0.015	8.00		26.5
830725	1615	16488	0.30	191.3	1.20	62.40	563.0	0.004	15.00	5 7 9	24.0
830809	0915	16501	0.30	200.0	0.83	58.10	560.0	0.002	5.00	8	21.0
830920	1705	16514	0.30	200.8	0.79	68.80	610.0	0.003	13.00	5 7 9	21.5
831017	1730	16527	0.30	196.9	0.44<T	96.60	766.0	0.004	10.00	8	10.5
831122		16540	0.30	157.5	0.70	62.80	585.0	0.003	13.00	8	2.5
		MAXIMUM	0.30	209.2	2.80	96.60	766.0	0.015	15.00		26.5
		ARITH MEAN	0.30	184.4	1.17<A	60.06	567.9	0.004	10.67		14.0
		GEOM MEAN		181.1	1.03<A	56.34	554.2	0.003	10.22		8.9
		MINIMUM	0.30	106.1	0.44	24.30	309.0	0.001	5.00		1.0
		STD DEV (GEOM *)		32.9	0.69<A	20.61	121.5	0.004	3.00		10.0
		# SAMP IN STATISTICS	9	9	9	9	9	9	9		9
		% SAMP (EXCLUDED)									

*INTERIM TEST-NAME:		NNHTFR	PBUT	PH	PPUT	TURB	ZNUT
		NH3-N	LEAD		PHOSPHOR		ZINC
		TOTAL	UNF.TOT.		UNF.TOT.		UNF.TOT.
SAMPLE	DATE	FIL.REAC	MG/L	PH	MG/L	TURB'ITY	MG/L
YYMMDD	HOUR	AS N	AS PB		AS P	FTU	AS ZN
	LMT						
830316	0945	16436	0.004<T	7.95	0.105	8.70	0.005
830330	0900	16449	0.004<T	8.31	0.052	9.70	0.004
830530	1410	16462	0.012	8.06	0.059	6.60	0.001
830622	1345	16475	0.004<T	7.94	0.071	4.50	0.003
830725	1615	16488	0.006<T	8.17	0.041	2.80	0.002
830809	0915	16501	0.040	8.02	0.082	5.40	0.003
830920	1705	16514	0.058	8.17	0.074	3.30	0.002
831017	1730	16527	0.028	8.05	0.051	14.80	0.005
831122		16540	0.032	8.04	0.061	13.50	0.007
		MAXIMUM	0.058	8.31	0.105	14.80	0.007
		ARITH MEAN	0.021<A	8.08	0.066	7.63	0.004
		GEOM MEAN	0.013<A	8.08	0.064	6.59	0.003
		MINIMUM	0.004	7.94	0.041	2.80	0.001
		STD DEV (GEOM *)	0.020<A	0.12	0.019	4.29	0.002
		# SAMP IN STATISTICS	9	9	9	9	9
		% SAMP (EXCLUDED)					

1983 WATER QUALITY DATA REGION 4

139

B.O.W./ SITE: CARP RIVER
 SAMPLE POINT: FIRST ROAD BRIDGE DNSTR OF KINBURN
 STATION TYPE: RIVER

STATION ID: 18-3370-121-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: CARP RIVER

STORET CODE: 02
 006
 2490

LAT: 45 25 02.60 LONG: 076 11 55.77 U T M: 18 0406200.0 5029800.0 4 REGION: 04 DISTANCE: 8.320

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP	
SAMPLE DATE	YEAR MONTH DAY	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL	ARSENIC UNF.TOT.	CONDUCT. 25C	COPPER UNF.TOT.	DISOLVED OXYGEN	IRON UNF.TOT.	STREAM COND.	WATER TEMP	
YYMMDD	LMT	M	CODE	AS CAC03	AS AS	UMHO/CM AT 25 C	AS CU	AS O	AS FE		DEG.C	
830316	1005	16435	0.30	0101	89.2	0.001<	258.0	0.002	9.00	1.850	5	2.5
830330	0925	16448	0.30	0101	205.9	0.001<	565.0	0.007	13.00	0.540	5	1.5
830530	1420	16461	0.30	0101	204.3	0.001<	496.0	0.003	10.00	0.395	5 9	16.5
830622	1410	16474	0.30	0101	188.6	0.001<	480.0	0.016	10.00	0.180	5 9	27.0
830725	1650	16487	0.30	0101	149.6	0.001<	443.0	0.005	12.00	0.130	7 0 9	26.0
830809	0850	16500	0.30	0101	151.9	0.001<	460.0	0.003	7.00	0.560	7 9	19.5
830920	1630	16513	0.30	0101	165.2	0.001<	505.0	0.001	7.50	0.220	7	19.0
831017	1700	16526	0.30	0101	177.9	0.001<	599.0	0.002	11.00	0.315	8	10.5
831122	0925	16539	0.30	0101	165.5	0.001<	569.0	0.003	12.50	0.750	8	2.0
MAXIMUM		0.30			205.9		599.0	0.016	13.00	1.850		27.0
ARITH MEAN		0.30			166.5		486.1	0.005	10.22	0.549		13.8
GEOM MEAN					162.3		474.4	0.003	10.01	0.401		8.9
MINIMUM		0.30			89.2		258.0	0.001	7.00	0.130		1.5
STD DEV (GEOM %)					35.5		100.6	0.005	2.12	0.528		10.1
# SAMP IN STATISTICS		9			9		9		9	9		9
% SAMP (EXCLUDED)												

*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	YEAR MONTH DAY	NICKEL UNF.TOT.	LEAD UNF.TOT.	PH	PHENOLS UNF-REAC	PHOSPHOR UNF.TOT.	TURB'ITY	ZINC UNF.TOT.
YYMMDD	LMT	AS NI	AS PB	PH	UG/L PHENOL	MG/L AS P	FTU	MG/L AS ZN
830316	1005	16435	0.002<	0.003<	7.28	0.4<T	0.217	0.008
830330	0925	16448	0.002<	0.003<	8.07	1.0	0.061	0.004
830530	1420	16461	0.002<	0.003<	8.15	0.052	9.90	0.001
830622	1410	16474	0.001	0.003<	7.93	0.2<T	4.50	0.002
830725	1650	16487	0.002<	0.003<	8.16	0.2<W	5.00	0.001<
830809	0850	16500	0.002<	0.003<	8.16	0.075	2.50	0.003
830920	1630	16513	0.004	0.003<	7.93	0.077	2.10	0.004
831017	1700	16526	0.002<	0.003<	7.88	-0.4<T	0.067	0.004
831122	0925	16539	0.002<	0.003	7.86	0.2<W	0.081	0.006
MAXIMUM		0.004	0.003	8.16	1.0	0.217	13.80	0.008
ARITH MEAN		0.002	0.003	7.92	0.3<A	0.088	5.86	0.004
GEOM MEAN				7.92		0.079	4.89	
MINIMUM		0.001	0.003	7.28	-0.4	0.044	2.10	0.001
STD DEV (GEOM %)				0.27		0.053	3.99	
# SAMP IN STATISTICS		2	1	9	7	9	8	8
% SAMP (EXCLUDED)		77	88					11

1983 WATER QUALITY DATA REGION 4

140

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: AT RAILWAY BRIDGE NORTH GALETTA
 STATION TYPE: RIVER

STATION ID: 18-3430-030-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 45 25 23.20 LONG: 076 15 09.47 U T M: 18 0402000.0 5030500.0 4 REGION: 04 DISTANCE: 3.701

*=INTERIM	TEST-NAME:	FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FEUT	FWSTRC
					BOD						
					5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	IRON	
SAMPLE		SAMPLE	PROJECT	TOTAL	TOT.DEM.	UNF.REAC	25C	UNF.TOT.	OXYGEN	UNF.TOT.	
DATE	HOUR	DEPTH	SUB-PROJ	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	STREAM
YYMMDD	LMT	M	CODE	AS CAC03	AS O	AS CL-	AT 25 C	AS CU	AS O	AS FE	COND.
830207	1315	16420	0101	88.8			208.0	0.010	14.00	0.145	8
830316	1045	16433	0101	83.3			202.0	0.001	11.00	0.735	5
830330	1050	16446	0101	97.7			222.0	0.008	14.00	0.275	8
830530	1510	16459	0101	89.3			187.0	0.010	9.00	0.215	8
830622	1455	16472	0101	92.2			200.0	0.022	10.00	0.180	8
830725	1750	16485	0101	91.8			198.0	0.019	9.00	0.215	8
830809	0850	16498	0101	91.4			194.0	0.006	8.00	0.190	8
830920	1530	16511	0101	87.2			187.0	0.001	11.00	0.205	8
831017	1620	16524	0101	97.2			219.0	0.002	10.00	0.185	8
831122	0830	16534	0101	80.4	0.92	4.14	197.0	0.001<	13.00		8
	1005	16537	0101	90.9			235.0	0.001	13.00	0.200	8
831220	1010	16550	0101	98.2			250.0	0.002	17.00	0.120	8
		MAXIMUM	0.30	98.2	0.92	4.14	250.0	0.022	17.00	0.735	
		ARITH MEAN	0.30	90.7	0.92	4.14	208.2	0.007	11.58	0.242	
		GEOM MEAN		90.5			207.4		11.32	0.214	
		MINIMUM	0.30	80.4	0.92	4.14	187.0	0.001	8.00	0.120	
		STD DEV (GEOM *)		5.5			19.6		2.64	0.168	
		# SAMP IN STATISTICS	12	12	1	1	12	11	12	11	
		% SAMP (EXCLUDED)						8			

*=INTERIM	TEST-NAME:	FWTEMP	NNHTFR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
			NH3-N							
			TOTAL	LEAD		PHENOLS	PHOSPHOR			ZINC
SAMPLE		WATER	FIL.REAC	UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE	TURB'ITY	UNF.TOT.
DATE	HOUR	TEMP	MG/L	MG/L		UG/L	MG/L	PARTIC.	FTU	MG/L
YYMMDD	LMT	DEG.C	AS N	AS PB	PH	PHENOL	AS P	MG/L		AS ZN
830207	1315	16420	0.006	0.003<	8.09		0.024	2.000	2.40	0.002
830316	1045	16433	3.5	0.002<T	7.81	0.4<T	0.079	10.600	13.10	0.005
830330	1050	16446	2.0	0.004<T	8.16	0.2<N	0.051	6.460	4.50	0.004
830530	1510	16459	16.0	0.006	8.00	0.4<T	0.028	5.740	3.60	0.002
830622	1455	16472	28.0	0.030	8.16	1.2	0.030	4.890	4.80	0.003
830725	1750	16485	24.0	0.008	7.94	0.2<T	0.040	4.180	2.80	0.004
830809	0850	16498	22.5	0.038	7.97	0.2<T	0.033	3.350	3.60	0.007
830920	1530	16511	22.0	0.026	8.17	0.2<T	0.030	4.280	3.60	0.003
831017	1620	16524	12.0	0.028	7.99	0.2<N	0.025	11.500	2.40	0.001
831122	0830	16534	3.5	0.036	8.12		0.019		1.28	0.004
	1005	16537	2.0	0.054	7.96		0.025	3.400	2.30	0.003
831220	1010	16550	0.5	0.024	8.18	0.2<N	0.014	2.820	2.40	0.003

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

141

B.O.W./ SITE: MISSISSIPPI RIVER
SAMPLE POINT: AT RAILWAY BRIDGE NORTH GALETTA
STATION TYPE: RIVER

STATION ID: 18-3430-030-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
006
2670

LAT: 45 25 23.20 LONG: 076 15 09.47

U T M: 18 0402000.0 5030500.0 4

REGION: 04

DISTANCE: 3.701

*INTERIM TEST-NAME:		FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
SAMPLE DATE	HOUR YYMMDD LMT	WATER TEMP DEG.C	FIL.REAC MG/L AS N	LEAD UNF.TOT. MG/L AS PB		PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	RESIDUE PARTIC. MG/L	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
		MAXIMUM	28.0	0.054	0.004	8.18	1.2	0.079	11.500	0.007
		ARITH MEAN	11.4	0.022<A	0.004	8.05	0.4<A	0.033	5.384	0.003
		GEOM MEAN	5.8	0.015<A		8.05	0.3<A	0.030	4.712	0.003
		MINIMUM	0.5	0.002	0.004	7.81	0.2	0.014	2.000	0.001
		STD DEV (GEOM *)	10.5	0.017<A		0.12	0.3<A	0.017	3.081	0.002
		# SAMP IN STATISTICS	12	12	1	12	9	12	11	12
		% SAMP (EXCLUDED)			91					

1983 WATER QUALITY DATA REGION 4

142

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: AT DAM BELOW PAKENHAM
 STATION TYPE: RIVER

STATION ID: 18-3430-034-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 45 20 10.73 LONG: 076 17 13.52 U T M: 18 0399150.0 5020900.0 4 REGION: 04 DISTANCE: 14.966

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE DATE	TIME	SAMPLE NUMBER	SAMPLE DEPTH	PROJECT SUB-PROJ CODE	ALK TOTAL MG/L AS CACO3	ARSENIC UNF.TOT. MG/L AS AS	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF.TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	IRON UNF.TOT. MG/L AS FE	WATER TEMP DEG.C
830316	1130	16431	0.30	0101	86.3	0.001<	204.0	0.001	12.00	0.400	5.0
830330	1140	16444	0.30	0101	94.6	0.001<	214.0	0.029	14.00	0.205	1.5
830530	1545	16457	0.30	0101	88.8	0.001<	192.0	0.003	9.00	0.235	16.0
830725	1850	16483	0.30	0101	90.8	0.001<	195.0	0.003	10.00	0.115	25.0
830809	0715	16496		0101	89.9	0.001<	191.0	0.011		0.170	
830920	1445	16509	0.30	0101	87.9	0.001<	189.0	0.001	12.00	0.120	23.0
831017	1530	16522	0.30	0101	93.5	0.001<	209.0	0.001	11.00	0.105	12.5
831122	1055	16535	0.30	0101	87.5	0.001<	217.0	0.001	12.50	0.180	3.0
831220	0900	16548	0.30	0101	95.6	0.001<	241.0	0.002	12.00	0.235	0.5
MAXIMUM		0.30			95.6		241.0	0.029	14.00	0.400	25.0
ARITH MEAN		0.30			90.5		205.8	0.006	11.56	0.196	10.8
GEOM MEAN					90.5		205.2	0.003	11.47	0.180	5.8
MINIMUM		0.30			86.3		189.0	0.001	9.00	0.105	0.5
STD DEV (GEOM #)					3.3		16.8	0.009	1.55	0.091	9.8
# SAMP IN STATISTICS		8			9		9	9	8	9	8
% SAMP (EXCLUDED)											

*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	TIME	NICKEL UNF.TOT. MG/L AS NI	LEAD UNF.TOT. MG/L AS PB	PH	PHENOLS UNF-REAC UG/L PHENOL	PHOSPHOR UNF.TOT. MG/L AS P	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
830316	1130	16431	0.002<	0.003<	7.59	0.2<W	0.041	5.30
830330	1140	16444	0.002<	0.003<	8.25	0.2<W	0.032	4.40
830530	1545	16457	0.002<	0.003<	7.98	0.2<T	0.030	2.00
830725	1850	16483	0.003<	0.003<	8.34	0.4<T	0.032	2.80
830809	0715	16496	0.013	0.003<	8.11	0.4<T	0.036	3.50
830920	1445	16509	0.002<	0.003<	8.46	0.2<W	0.015	1.60
831017	1530	16522	0.002<	0.003<	8.19	0.2<W	0.026	1.60
831122	1055	16535	0.002<	0.003<	7.90		0.025	2.20
831220	0900	16548	0.002<	0.003<	8.16	0.2<T	0.011	2.00
MAXIMUM		0.013		8.46	0.4	0.041	5.30	0.005
ARITH MEAN		0.013		8.11	0.2<A	0.028	2.82	0.004
GEOM MEAN				8.11	0.2<A	0.026	2.58	
MINIMUM		0.013		7.59	0.2	0.011	1.60	0.002
STD DEV (GEOM #)				0.26	0.1<A	0.010	1.31	
# SAMP IN STATISTICS		1		9	8	9	9	7
% SAMP (EXCLUDED)		88						22

III

1983 WATER QUALITY DATA REGION 4

143

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: DOWNSTREAM OF ALMONTE
 STATION TYPE: RIVER

STATION ID: 18-3430-040-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 45 14 20.18 LONG: 076 12 39.57 U T M: 18 0404950.0 5009990.0 4 REGION: 04 DISTANCE: 28.485

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FCMF	FSMF
					BOD					FECAL	FECAL
					5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	COLIFORM	STREPCUS
					TOT. DEM.	UNF. REAC	25C	UNF. TOT.	OXYGEN	MF	MF
					MG/L	MG/L	UMHO/CM	MG/L	MG/L	CNT	CNT
					AS O	AS CL-	AT 25 C	AS CU	AS O	/100ML	/100ML
SAMPLE	DATE	TIME	DEPTH	PROJECT	TOTAL						
YYMMDD	LMT	NUMBER	M	SUB-PROJ	MG/L						
				CODE	AS CAC03						
830207	1100	16417	0.30	0101	83.8		3.30	195.0	0.006	13.00	
830316	0850	16430	0.30	0101	84.2	0.40<T	4.35	195.0	0.001<	12.00	
830330	0810	16443	0.30	0101	91.2	0.72	4.18	205.0	0.009	13.00	
830530	1335	16456	0.30	0101	84.1	0.73	2.53	182.0	0.010	9.00	
830622	1315	16469	0.30	0101	85.7	0.73	3.03	186.0	0.012	10.00	
830725	1545	16482	0.30	0101	86.8	0.61	3.00	183.0	0.019	11.50	
830809	0945	16495	0.30	0101	86.6	0.56	2.74	181.0	0.003	9.00	
830920	1740	16508	0.30	0101	85.5	0.43<T	2.87	179.0	0.001	12.00	
831017	1800	16521	0.30	0101	88.1	0.56	3.10	192.0	0.001	11.00	
831220	1120	16547	0.30	0101	90.0	0.60	5.07	228.0	0.001	14.00	200 70<==
		MAXIMUM	0.30		91.2	0.73	5.07	228.0	0.019	14.00	200 70
		ARITH MEAN	0.30		86.6	0.59<A	3.42	192.6	0.007	11.45	200 70
		GEOM MEAN			86.6	0.58<A	3.34	192.1		11.33	
		MINIMUM	0.30		83.8	0.40	2.53	179.0	0.001	9.00	200 70
		STD DEV (GEOM *)			2.5	0.12<A	0.83	14.9		1.71	
		# SAMP IN STATISTICS	10		10	9	10	9	10	1	1
		% SAMP (EXCLUDED)						10			
*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NNHTFR	PBUT	PH	PPUT	TCHF	TCHFBK	TURB	ZNUT
				NH3-N				COLIFORM	COLIFORM		
				TOTAL	LEAD			TOTAL	TOTAL		
				FIL. REAC	UNF. TOT.		PHOSPHOR	MF	MF		ZINC
				MG/L	MG/L		MG/L	CNT	CNT	TURB'ITY	MG/L
				AS N	AS PB	PH	AS P	/100ML	/100ML	FTU	AS ZN
830207	1100	16417	8	1.0	0.002<T	0.003<	8.03	0.015		1.20	0.006
830316	0850	16430	8	3.5	0.002<T	0.003<	8.36	0.021		1.80	0.001
830330	0810	16443	8	2.0	0.006	0.003<	8.34	0.109		1.60	0.002
830530	1335	16456	8	16.5	0.006	0.003<	8.03	0.027		1.35	0.004
830622	1315	16469	8	28.0	0.040	0.003<	8.31	0.024		1.20	0.001
830725	1545	16482	5 9	25.5	0.058	0.004	8.75	0.031		1.65	0.004
830809	0945	16495	8 9	23.0	0.036	0.003<	8.37	0.022		2.50	0.002
830920	1740	16508	9	22.0	0.016	0.003<	8.78	0.024		1.30	0.003
831017	1800	16521	9	12.0	0.024	0.003<	8.30	0.024		1.30	0.003
831220	1120	16547	8	0.5	0.020	0.003<	8.15	0.012	640	700	1.60 0.002

(CONT'D)

1983 WATER QUALITY DATA REGION 4

144

B.O.W./ SITE: MISSISSIPPI RIVER
SAMPLE POINT: DOWNSTREAM OF ALMONTE
STATION TYPE: RIVER

STATION ID: 18-3430-040-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
006
2670

LAT: 45 14 20.18 LONG: 076 12 39.57 U T M: 18 0404950.0 5009990.0 4 REGION: 04 DISTANCE: 28.485

* = INTERIM		TEST-NAME:	FWSTRC	FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PPUT	TCHF COLIFORM TOTAL	TCHFBK COLIFORM TOTAL MF	TURB	ZNUT
SAMPLE DATE YYMMDD	HOURL LMT	SAMPLE NUMBER	STREAM COND.	WATER TEMP DEG.C	FIL.REAC MG/L AS N	UNF.TOT. MG/L AS PB		PHOSPHOR UNF.TOT. MG/L AS P	MF CNT /100ML	BCKGRD CNT /100ML	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN
		MAXIMUM		28.0	0.058	0.004	8.78	0.109	640	700	2.50	0.006
		ARITH MEAN		13.4	0.021<A	0.004	8.34	0.031	640	700	1.55	0.003
		GEOM MEAN		6.9	0.012<A		8.34	0.025			1.51	0.002
		MINIMUM		0.5	0.002	0.004	8.03	0.012	640	700	1.20	0.001
		STD DEV (GEOM *)		11.0	0.019<A		0.26	0.028			0.39	0.002
		# SAMP IN STATISTICS		10	10	1	10	10	1	1	10	10
		% SAMP (EXCLUDED)				90						

1983 WATER QUALITY DATA REGION 4

145

B.O.W./ SITE: MISSISSIPPI RIVER

SAMPLE POINT: BRIDGE AT APPLETON APPROX. 4.5KM DNSTR

STATION TYPE: RIVER

CARLETON PLACE STP

MAJOR BASIN: GREAT LAKES

MINOR BASIN: OTTAWA RIVER

TERM STREAM: MISSISSIPPI RIVER

STATION ID: 18-3430-061-02

STORET CODE: 02
006
2670

LAT: 45 10 53.05 LONG: 076 07 28.19

U T M: 18 0411650.0 5003500.0 4

REGION: 04

DISTANCE: 49.882

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	BOD5	CLIDUR	COND25	CUUT	DO	FCMF	FSMF
					BOD					FECAL	FECAL
				ALK	5 DAY	CHLORIDE	CONDUCT.	COPPER	DISOLVED	COLIFORM	STREPCUS
				TOTAL	TOT. DEM.	UNF. REAC	25C	UNF. TOT.	OXYGEN	HF	HF
				MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	CNT	CNT
				AS CAC03	AS O	AS CL-	AT 25 C	AS CU	AS O	/100ML	/100ML
SAMPLE DATE	YMMDD LMT	YMMDD LMT	DEPTH	PROJECT							
YMMDD LMT	NUMBER	NUMBER	M	SUB-PROJ							
				CODE							
830202	0950	16415	0.30	0101	83.1	1.00	2.95	194.0	0.007	13.00	
830316	0830	16429	0.30	0101	83.6	0.37<T	3.75	194.0	0.001	12.00	
830330	0740	16442	0.30	0101	88.2	1.02	3.95	200.0	0.001	13.00	
830530	1630	16455	0.30	0101	81.3	1.34	2.52	178.0	0.001	10.00	
830622	1300	16468	0.30	0101	85.1	0.74	3.00	186.0	0.025	9.00	
830725	2025	16481	0.30	0101	86.3	0.93	2.65	181.0	0.004	11.00	
830809	1030	16494	0.30	0101	87.6	0.50	2.48	182.0	0.001<	10.00	
830921	0840	16507	0.30	0101					0.001	9.00	
831017	1410	16520	0.30	0101	83.1	0.07<T	2.86	181.0	0.001	13.00	
831122	1125	16533	0.30	0101	79.0	0.90	3.98	182.0	0.001	13.00	
831220	1145	16546	0.30	0101	86.6	0.85	4.36	219.0	0.004	14.00	30<=> 10<
		MAXIMUM	0.30		88.2	1.34	4.36	219.0	0.025	14.00	30
		ARITH MEAN	0.30		84.4	0.77<A	3.25	189.7	0.005	11.55	30
		GEOM MEAN			84.3	0.63<A	3.19	189.3		11.41	
		MINIMUM	0.30		79.0	0.07	2.48	178.0	0.001	9.00	30
		STD DEV (GEOM *)			2.9	0.37<A	0.69	12.6		1.81	
		# SAMP IN STATISTICS	11		10	10	10	10	10	11	1
		% SAMP (EXCLUDED)							9		

*INTERIM TEST-NAME:		FWSTRC	FWTEMP	NNHTR	PBUT	PH	PPUT	TCMF	TCMFBK	TURB	ZNUT
				NH3-N	LEAD			COLIFORM	COLIFORM		ZINC
				TOTAL	UNF. TOT.			TOTAL	TOTAL HF		UNF. TOT.
				FIL. REAC	MG/L			MG/L	BCKGRD		MG/L
				AS N	AS PB			AS P	CNT		AS ZN
									/100ML		
SAMPLE DATE	YMMDD LMT	YMMDD LMT	STREAM	WATER						TURB'ITY	
YMMDD LMT	NUMBER	NUMBER	COND.	TEMP						FTU	
				DEG. C							
830202	0950	16415	8	0.5	0.020	0.003<	7.95	0.014		0.71	0.001
830316	0830	16429	8	3.0	0.006	0.003<	8.04	0.012		0.77	0.001
830330	0740	16442	8	1.5	0.006	0.003<	8.16	0.021		1.50	0.001
830530	1630	16455	8	17.0	0.016	0.003<	8.23	0.019		1.76	0.001<
830622	1300	16468	8	28.0	0.012	0.003<	8.18	0.023		0.70	0.005
830725	2025	16481	8	24.0	0.036	0.003<	8.70	0.020		1.25	0.001<
830809	1030	16494	8	23.0	0.024	0.003<	8.24	0.023		1.63	0.001
830921	0840	16507	8	21.0		0.003<					0.002
831017	1410	16520	8	12.0	0.024	0.003<	8.32	0.023		1.50	0.001
831122	1125	16533	8	5.0	0.030	0.003<	7.96	0.018		1.35	0.001
831220	1145	16546	8	0.5	0.020	0.003	8.12	0.014	300	700	0.002

(CONT'D)

III

1983 WATER QUALITY DATA REGION 4

146

B.O.W./ SITE: MISSISSIPPI RIVER

SAMPLE POINT: BRIDGE AT APPLETON APPROX. 4.5KM DNSTR

STATION TYPE: RIVER

CARLETON PLACE STP

MAJOR BASIN: GREAT LAKES

MINOR BASIN: OTTAWA RIVER

TERM STREAM: MISSISSIPPI RIVER

STATION ID: 18-3430-061-02

STORET CODE: 02

006

2670

LAT: 45 10 53.05 LONG: 076 07 28.19

U T M: 18 0411650.0 5003500.0 4

REGION: 04

DISTANCE: 49.882

*=INTERIM		TEST-NAME:	FWSTRC	FWTEMP	NNHTFR NH3-N TOTAL	PBUT	PH	PPUT	TCMF COLIFORM TOTAL	TCMFBK COLIFORM TOTAL MF BCKGRD	TURB	ZNUT	
SAMPLE DATE	YHMDD	TIME	NUMBER	COND.	WATER TEMP DEG.C	FIL.REAC MG/L AS N	LEAD MG/L AS PB	PHOSPHOR UNF.TOT. MG/L AS P	CNT /100ML	CNT /100ML	TURB'ITY FTU	ZINC UNF.TOT. MG/L AS ZN	
MAXIMUM					26.0	0.036	0.003	8.70	0.023	300	700	2.00	0.005
ARITH MEAN					12.3	0.019	0.003	8.19	0.019	300	700	1.30	0.002
GEOM MEAN					6.0	0.017		8.19	0.018			1.22	
MINIMUM					0.5	0.006	0.003	7.95	0.012	300	700	0.70	0.001
STD DEV (GEOM *)					10.6	0.010		0.22	0.004			0.45	
# SAMP IN STATISTICS					11	10	1	10	10	1	1	10	9
% SAMP (EXCLUDED)							90						18

1983 WATER QUALITY DATA REGION 4

147

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: AT DALHOUSIE LAKE OUTLET
 STATION TYPE: RIVER

STATION ID: 18-3430-175-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 44 58 21.65 LONG: 076 32 18.89 U T M: 18 0378675.0 4980850.0 4 REGION: 04 DISTANCE: 102.995

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP	NNHFR
SAMPLE		SAMPLE	PROJECT	ALK	CONDUCT.	COPPER	DISOLVED	IRON			
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	25C	UNF.TOT.	OXYGEN	UNF.TOT.		WATER	NH3-N
YYMMDD	LMT	NUMBER	CODE	MG/L	UMHO/CM	MG/L	MG/L	MG/L	STREAM	TEMP	FIL.REAC
		M		AS CAC03	AT 25 C	AS CU	AS O	AS FE	COND.	DEG.C	MG/L
											AS N
830201	1530	16412	0101	53.5	132.0	0.005	12.00	0.045	8	1.0	0.012
830315	1245	16425	0101	53.0	132.0	0.001	13.00	0.055	8	3.0	0.002<T
830329	1150	16438	0101	56.0	134.0	0.007	13.00	0.070	8	3.0	0.002<T
830531	1100	16451	0101	56.8	128.8	0.001		0.030<T			0.034
830622	1025	16464	0101	58.2	135.0	0.014	11.00	0.035<T	9	25.0	0.054
830725	1245	16477	0101	59.2	133.0	0.022	11.00	0.050	8	26.0	0.026
830808	1210	16490	0101	57.5	126.5	0.003	10.00	0.105	7 9	26.5	0.036
830920	1230	16503	0101	53.7	119.1	0.001	9.00	0.060	8	20.0	0.020
831017	1230	16516	0101	54.9	126.4	0.001	11.00	0.055	8	12.0	0.032
831121	1500	16529	0101	53.5	125.8	0.001<	14.00	0.045	8	4.5	0.016
831219	1410	16542	0101	58.9	325.0	0.001	14.00	0.150	8	0.5	0.016
MAXIMUM		0.30		59.2	325.0	0.022	14.00	0.150		26.5	0.054
ARITH MEAN		0.30		55.9	147.1	0.006	11.80	0.064<A		12.1	0.023<A
GEOM MEAN				55.9	140.5		11.69	0.057<A		6.2	0.016<A
MINIMUM		0.30		53.0	119.1	0.001	9.00	0.030		0.5	0.002
STD DEV (GEOM *)				2.3	59.2		1.69	0.035<A		11.1	0.016<A
# SAMP IN STATISTICS		11		11	11	10	10	11		10	11
% SAMP (EXCLUDED)						9					
*=INTERIM TEST-NAME:		PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT			
SAMPLE		LEAD		PHENOLS	PHOSPHOR			ZINC			
DATE	HOUR	UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE		UNF.TOT.			
YYMMDD	LMT	MG/L		UG/L	MG/L	PARTIC.	TURB'ITY	MG/L			
		AS PB	PH	PHENOL	AS P	MG/L	FTU	AS ZN			
830201	1530	0.003<	8.08	0.2<W	0.007	1.4	0.65	0.004			
830315	1245	0.003<	8.06	0.2<W	0.129	2.710	0.54	0.002			
830329	1150	0.003<	7.91	0.2<W	0.011	0.680<T	0.54	0.001			
830531	1100	0.003<	7.87	0.8	0.011	1.020	0.67	0.001			
830622	1025	0.003<	8.30	0.6<T	0.013	0.956	0.60	0.001<			
830725	1245	0.003<	8.52	0.2<W	0.020	0.940	1.00	0.002			
830808	1210	0.003<	8.01	0.2<T	0.016	5.990	3.90	0.004			
830920	1230	0.003<	8.65	0.2<W	0.022	0.440<T	0.90	0.003			
831017	1230	0.003<	8.35	0.2<W	0.016	0.240<T	1.21	0.003			
831121	1500	0.003<	7.85	0.2<W	0.011	0.120<T	1.11	0.006			
831219	1410	0.003	7.92	0.2<T	0.009	3.200	2.50	0.016			

(CONT'D)

1983 WATER QUALITY DATA REGION 4

148

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: AT DALHOUSIE LAKE OUTLET
 STATION TYPE: RIVER

STATION ID: 18-3430-175-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 44 58 21.65 LONG: 076 32 18.89

U T M: 18 0378675.0 4980850.0 4

REGION: 04

DISTANCE: 102.995

*=INTERIM	TEST-NAME:	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
		LEAD		PHENOLS	PHOSPHOR			ZINC
SAMPLE	UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE		UNF.TOT.	
DATE	MG/L		UG/L	MG/L	PARTIC.	TURB'ITY	MG/L	
YYMMDD LMT	AS PB	PH	PHENOL	AS P	MG/L	FTU	AS ZN	
	MAXIMUM	0.003	8.65	0.8	0.129	5.990	3.90	0.016
	ARITH MEAN	0.003	8.14	0.3<A	0.024	1.616<A	1.24	0.004
	GEOM MEAN		8.13	0.3<A	0.016	0.956<A	0.99	
	MINIMUM	0.003	7.85	0.2	0.007	0.120	0.54	0.001
	STD DEV (GEOM %)		0.28	0.2<A	0.035	1.746<A	1.04	
# SAMP IN STATISTICS	1		11	11	11	11	11	10
% SAMP (EXCLUDED)	90							9

III

1983 WATER QUALITY DATA REGION 4

149

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: AT MAZINAW LAKE OUTLET
 STATION TYPE: RIVER

STATION ID: 18-3430-230-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 44 50 59.62 LONG: 077 10 12.89 U T M: 18 0328500.0 4968350.0 4 REGION: 04 DISTANCE: 169.298

*=INTERIM		TEST-NAME:	FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP	NNHTFR NH3-N TOTAL
SAMPLE DATE	HOUR	SAMPLE NUMBER	SAMPLE DEPTH M	PROJECT SUB-PROJ CODE	ALK MG/L AS CAC03	CONDUCT. 25C UMHO/CM AT 25 C	COPPER UNF. TOT. MG/L AS CU	DISOLVED OXYGEN MG/L AS O	IRON UNF. TOT. MG/L AS FE	STREAM COND.	WATER TEMP DEG.C	FIL. REAC MG/L AS N
830201	1320	16411	0.30	0101	22.6	77.4	0.006	11.00	0.075	8	3.0	0.010
830315	1100	16424	0.30	0101	25.0	81.6	0.001	12.00	0.040<T	8	3.0	0.020
830329	0945	16437	0.30	0101	22.9	74.8	0.007	11.00	0.065	8	3.0	0.014
830531	0935	16450	0.30	0101	25.1	72.2	0.001	10.00		8	10.5	0.018
830622	0830	16463	0.30	0101	22.8	72.7	0.035	10.00	0.045	9	23.0	0.042
830725	0930	16476	0.30	0101	23.1	74.0	0.007	11.00	0.025<T	8	22.0	0.008
830808	0915	16489	0.30	0101	23.8	76.8	0.004	8.00	0.160	8	24.0	0.046
830920	1000	16502	0.30	0101	23.0	70.3	0.001<	11.00	1.025	8	22.0	0.012
831017	1030	16515	0.30	0101	24.4	73.7	0.001	10.50	0.040<T	8	12.0	0.010
831121	1240	16528	0.30	0101	21.7	70.2	0.001<	14.00	0.030<T	8	6.0	0.014
831219	1100	16541	0.30	0101	24.7	79.1	0.002	12.00	0.055	8	0.5	0.010
MAXIMUM			0.30		25.1	81.6	0.005	14.00	1.025		24.0	0.046
ARITH MEAN			0.30		23.6	74.8	0.007	10.95	0.156<A		11.7	0.019
GEOM MEAN					23.5	74.7		10.86	0.069<A		7.2	0.016
MINIMUM			0.30		21.7	70.2	0.001	8.00	0.025		0.5	0.008
STD DEV (GEOM *)					1.1	3.6		1.49	0.308<A		9.4	0.013
# SAMP IN STATISTICS			11		11	11	9	11	10		11	11
% SAMP (EXCLUDED)							18					
*=INTERIM		TEST-NAME:	PBUT LEAD UNF. TOT.	PH	PHNOL UNF. REAC UG/L PHENOL	PPUT PHOSPHOR UNF. TOT. MG/L AS P	RSP RESIDUE MG/L	TURB TURB.ITY FTU	ZNUT ZINC UNF. TOT. MG/L AS ZN			
SAMPLE DATE	HOUR	SAMPLE NUMBER	AS PB	PH								
830201	1320	16411	0.003<	7.59	0.2<T	0.007	3.540	0.70	0.003			
830315	1100	16424	0.003<	7.62	0.2<W	0.005	0.250<T	0.39	0.002			
830329	0945	16437	0.003<	7.58	0.2<W	0.006	0.590<T	0.33	0.003			
830531	0935	16450	0.003<	7.61	0.4<T	0.008	0.360<T	0.54	0.001			
830622	0830	16463	0.010	7.67	0.4<T	0.010	2.150	0.70	0.003			
830725	0930	16476	0.005	7.62	0.4<T	0.009	0.280<T	0.75	0.003			
830808	0915	16489	0.007	7.36	18.0	0.016	5.760	3.00	0.015			
830920	1000	16502	0.003<	7.68	0.2<W	0.007	0.980	0.76	0.004			
831017	1030	16515	0.003	7.67	0.2<W	0.008	3.610	0.64	0.007			
831121	1240	16528	0.003<	7.52		0.009	0.120<T	0.42	0.001			
831219	1100	16541	0.004	7.45	0.4<T	0.007	1.110	0.71	0.011			

(CONT'D)

1983 WATER QUALITY DATA REGION 4

150

B.O.W./ SITE: MISSISSIPPI RIVER
 SAMPLE POINT: AT MAZINAM LAKE OUTLET
 STATION TYPE: RIVER

STATION ID: 18-3430-230-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 44 50 59.62 LONG: 077 10 12.89

U T M: 18 0328500.0 4968350.0 4

REGION: 04

DISTANCE: 169.298

*INTERIM TEST-NAME:		PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT	
		LEAD		PHENOLS	PHOSPHOR			ZINC	
SAMPLE		UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE	TURB'ITY	UNF.TOT.	
DATE	HR	MG/L		UG/L	MG/L	PARTIC.	FTU	MG/L	
YYMMDD	LMT	AS PB	PH	PHENOL	AS P	MG/L		AS ZN	
		MAXIMUM	0.010	7.68	18.0	0.016	5.760	3.00	0.015
		ARITH MEAN	0.006	7.58	2.1<A	0.008	1.705<A	0.81	0.005
		GEOM MEAN		7.58	0.4<A	0.008	0.898<A	0.66	0.003
		MINIMUM	0.003	7.36	0.2	0.005	0.120	0.33	0.001
		STD DEV (GEOM #)		0.10	5.6<A	0.003	1.850<A	0.74	0.004
		# SAMP IN STATISTICS	5	11	10	11	11	11	11
		% SAMP (EXCLUDED)	54						

1983 WATER QUALITY DATA REGION 4

151

B.O.W./ SITE: CLYDE RIVER
 SAMPLE POINT: BELOW LANARK
 STATION TYPE: RIVER

STATION ID: 18-3430-520-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 45 00 44.08 LONG: 076 21 54.54 U T M: 18 0392425.0 4985000.0 4 REGION: 04 DISTANCE: 86.902

*=INTERIM TEST-NAME:		FMSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE DATE	HOUR	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL	ARSENIC UNF.TOT.	CONDUCT. 25C	COPPER UNF.TOT.	DISOLVED OXYGEN	IRON UNF.TOT.	STREAM COND.	WATER TEMP
YYMMDD	LMT	NUMBER	CODE	MG/L AS CACO3	MG/L AS AS	UMHO/CM AT 25 C	MG/L AS CU	MG/L AS O	MG/L AS FE		DEG.C
830201	1640	16414	0101	120.0	0.001<	259.0	0.008	12.00	0.090	8	0.5
830315	1320	16427	0101	111.6	0.001<	235.0	0.001	12.00	0.100	8	2.5
830329	1250	16440	0101	95.7	0.001<	206.0	0.004	12.00	0.075	8	2.0
830530	1150	16453	0101	102.8	0.001<	211.0	0.001<	9.00	0.060	9	15.0
830622	1130	16466	0101	107.9	0.001<	219.0	0.021	9.00	0.075	8	27.0
830725	1400	16479	0101	116.0	0.001<	228.0	0.009	9.00	0.070	8	25.5
830808	1300	16492	0101	116.5	0.001<	222.0	0.007	9.00	0.100	8	24.0
830920	1325	16505	0101	122.6	0.001<	243.0	0.001	10.00	0.050	8	20.0
831017	0855	16518	0101	120.2	0.001<	247.0	0.001	8.00	0.070	8	10.5
831121	1615	16531	0101	118.9	0.001<	275.0	0.001	14.00	0.070	8	3.0
MAXIMUM		0.30		122.6		275.0	0.021	14.00	0.100		27.0
ARITH MEAN		0.30		113.2		234.5	0.006	10.40	0.076		13.0
GEOM MEAN				112.9		233.6		10.24	0.074		7.2
MINIMUM		0.30		95.7		206.0	0.001	8.00	0.050		0.5
STD DEV (GEOM *)				8.7		21.8		1.96	0.016		10.6
# SAMP IN STATISTICS		10		10		10	9	10	10		10
% SAMP (EXCLUDED)							10				

*=INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
SAMPLE DATE	HOUR	NICKEL UNF.TOT.	LEAD UNF.TOT.		PHENOLS UNF-REAC	PHOSPHOR UNF.TOT.	TURB'ITY	ZINC UNF.TOT.
YYMMDD	LMT	MG/L AS NI	MG/L AS PB	PH	UG/L PHENOL	MG/L AS P	FTU	MG/L AS ZN
830201	1640	16414	0.001<	0.003<	8.11	-0.6<T	0.009	0.88
830315	1320	16427	0.002<	0.003<	8.03	0.2<W	0.010	0.97
830329	1250	16440	0.002<	0.003<	8.25	0.2<W	0.016	0.81
830530	1150	16453	0.002<	0.003<	7.96	0.2<T	0.021	1.51
830622	1130	16466	0.001	0.004<	8.03	0.2<W	0.018	1.10
830725	1400	16479	0.002<	0.003<	8.02	0.2<W	0.029	1.20
830808	1300	16492	0.002<	0.003<	7.87	0.2<W	0.022	1.45
830920	1325	16505	0.002<	0.003<	7.69	0.2<T	0.024	1.00
831017	0855	16518	0.002<	0.003<	8.25	0.2<W	0.020	1.30
831121	1615	16531	0.003	0.003	7.92	0.2<W	0.014	1.30
MAXIMUM		0.003	0.003	8.25	0.2	0.029	1.51	0.007
ARITH MEAN		0.002	0.003	8.01	0.1<A	0.018	1.15	0.003
GEOM MEAN				8.01		0.017	1.13	0.002
MINIMUM		0.001	0.003	7.69	-0.6	0.009	0.81	0.001
STD DEV (GEOM *)				0.17		0.006	0.24	0.002
# SAMP IN STATISTICS		2	1	10	10	10	10	10
% SAMP (EXCLUDED)		80	90					

1983 WATER QUALITY DATA REGION 4

152

B.O.W./ SITE: CLYDE RIVER
 SAMPLE POINT: ABOVE LANARK
 STATION TYPE: RIVER FLOW GAUGE FED 02KF010

STATION ID: 18-3430-530-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 45 01 48.92 LONG: 076 21 52.66 U T M: 18 0392500.0 4987000.0 4 REGION: 04 DISTANCE: 90.121

*=INTERIM	TEST-NAME:	FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC
DATE	HOUR	SAMPLE	SAMPLE	PROJECT	ALK	UNF.TOT.	25C	UNF.TOT.	DISOLVED	IRON	STREAM
YYMMDD	LMT	NUMBER	DEPTH	SUB-PROJ	TOTAL	MG/L	UMHO/CM	MG/L	OXYGEN	UNF.TOT.	FLOW
			M	CODE	AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE	M3
											COND.
830315	1335	16428	0.30	0101	109.5	0.001<	238.0	0.001	12.00	0.090	8.680
830329	1310	16441	0.30	0101	94.6	0.001<	203.0	0.007	11.00	0.055	16.200
830530	1300	16454	0.30	0101	102.8	0.001<	213.0	0.001<	10.00	0.070	10.500
830622	1150	16467	0.30	0101	108.1	0.001<	218.0	0.020	9.00	0.065	2.220
830725	1420	16480	0.30	0101	113.4	0.001<	224.0	0.004	8.00	0.080	0.364
830808	1415	16493	0.30	0101	114.5	0.001	220.0	0.002	7.00	0.155	0.565
830920	1340	16506	0.30	0101	121.2	0.001<	233.0	0.001<	10.00	0.060	0.257
831018	0830	16519	0.30	0101	121.4	0.001<	243.0	0.001	8.00	0.045	0.435
831121	1630	16532	0.30	0101	116.8	0.001<	267.0	0.002	14.00	0.070	3.150
		MAXIMUM	0.30		121.4	0.001	267.0	0.020	14.00	0.155	16.200
		ARITH MEAN	0.30		111.4	0.001	228.8	0.005	9.89	0.077	4.708
		GEOM MEAN			111.1		228.1		9.68	0.072	1.836
		MINIMUM	0.30		94.6	0.001	203.0	0.001	7.00	0.045	0.257
		STD DEV (GEOM *)			8.7		19.0		2.20	0.032	5.746
		# SAMP IN STATISTICS	9		9	1	9	7	9	9	9
		% SAMP (EXCLUDED)				88		22			

*=INTERIM	TEST-NAME:	FWTEMP	NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT
DATE	HOUR	WATER	NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC
YYMMDD	LMT	TEMP	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
		DEG.C	MG/L	MG/L		UG/L	MG/L		MG/L
			AS NI	AS PB	PH	PHENOL	AS P	TURB'ITY	AS ZN
								FTU	
830315	1335	16428	2.0	0.002<	0.003<	7.95	0.2<W	0.014	0.001
830329	1310	16441	2.0	0.002<	0.003<	8.24	0.2<W	0.010	0.002
830530	1300	16454	16.0	0.002<	0.003<	7.97	0.2<T	0.027	0.001<
830622	1150	16467	26.5	0.002	0.003<	8.15		0.020	0.001
830725	1420	16480	25.0	0.002<	0.003<	7.89	0.2<W	0.022	0.001<
830808	1415	16493	26.0	0.002<	0.003<	7.88	0.6<T	0.022	0.001
830920	1340	16506	21.0	0.002<	0.003<	7.82	0.2<W	0.020	0.002
831018	0830	16519	10.5	0.004	0.003<	7.91	0.2<W	0.020	0.002
831121	1630	16532	3.0	0.002<	0.003<	8.04		0.015	0.010
		MAXIMUM	26.5	0.004		8.24	0.6	0.027	0.010
		ARITH MEAN	14.7	0.003		7.98	0.3<A	0.019	0.003
		GEOM MEAN	9.7			7.98	0.2<A	0.018	1.01
		MINIMUM	2.0	0.002		7.82	0.2	0.010	0.001
		STD DEV (GEOM *)	10.6			0.14	0.2<A	0.005	0.41
		# SAMP IN STATISTICS	9	2		9	7	9	7
		% SAMP (EXCLUDED)		77					22

1983 WATER QUALITY DATA REGION 4

153

B.O.W./ SITE: BENNETT LAKE OUTLET
 SAMPLE POINT: AT OUTLET DAM NEAR FALLBROOK
 STATION TYPE: RIVER

STATION ID: 18-3430-610-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 44 56 51.99 LONG: 076 24 39.02 U T M: 18 0388700.0 4977900.0 4 REGION: 04 DISTANCE: 88.351

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP
SAMPLE		SAMPLE	PROJECT	ALK	ARSENIC	CONDUCT.	COPPER	DISOLVED	IRON		
DATE	HOUR	DEPTH	SUB-PROJ	TOTAL	UNF.TOT.	25C	UNF.TOT.	OXYGEN	UNF.TOT.	STREAM	WATER
YYMMDD	LMT	NUMBER	CODE	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	COND.	TEMP
				AS CAC03	AS AS	AT 25 C	AS CU	AS O	AS FE		DEG.C
830201	1600	16413	0101	100.9	0.001<	233.0	0.007	11.00	0.055	8	1.0
830315	1305	16426	0101	96.2	0.001<	222.0	0.001	13.50	0.065	8	4.0
830329	1230	16439	0101	89.5	0.001<	202.0	0.004	11.00	0.070	8	3.0
830531	1135	16452	0101	89.6	0.001<	198.0	0.001	9.00	0.030<T	8	16.5
830622	1100	16465	0101	92.5	0.001<	209.0	0.012	8.00	0.025<T	8	27.0
830725	1320	16478	0101	92.8	0.001<	207.0	0.011	10.00	0.025<T	8	25.0
830808	1230	16491	0101	85.8	0.001<	192.0	0.003	11.00	0.035<T	8	26.0
830920	1300	16504	0101	89.3	0.001<	202.0	0.001	11.00	0.040<T	8	22.5
831017	1300	16517	0101	88.2	0.001<	201.0	0.002	11.50	0.070	8	11.5
831121	1535	16530	0101	92.3	0.001<	212.0	0.001<	13.00	0.015<T	8	4.0
831219	1505	16543	0101	95.6	0.001<	228.0	0.003	12.00	0.055	8	0.5
MAXIMUM		0.30		100.9		233.0	0.012	13.50	0.070		27.0
ARITH MEAN		0.30		92.1		209.6	0.004	11.00	0.044<A		12.8
GEOM MEAN				92.0		209.3		10.89	0.040<A		6.9
MINIMUM		0.30		85.8		192.0	0.001	8.00	0.015		0.5
STD DEV (GEOM *)				4.3		13.0		1.60	0.020<A		10.8
# SAMP IN STATISTICS		11		11		11	10	11	11		11
% SAMP (EXCLUDED)							9				
*INTERIM TEST-NAME:		NIUT	PBUT	PH	PHNOL	PPUT	TURB	ZNUT			
SAMPLE		NICKEL	LEAD		PHENOLS	PHOSPHOR		ZINC			
DATE	HOUR	UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.			
YYMMDD	LMT	MG/L	MG/L		UG/L	MG/L		MG/L			
		AS NI	AS PB	PH	PHENOL	AS P	TURB'ITY	AS ZN			
							FTU				
830201	1600	16413	0.001<	0.003<	7.97	-0.6<T	0.010	0.77	0.002		
830315	1305	16426	0.002<	0.003<	8.14	0.2<M	0.010	0.48	0.001<		
830329	1230	16439	0.002<	0.003<	7.92	0.2<M	0.016	0.74	0.001		
830531	1135	16452	0.002<	0.003<	7.94	0.2<M	0.014	0.67	0.001<		
830622	1100	16465	0.001<	0.003<	7.88	0.2<T	0.016	0.90	0.002		
830725	1320	16478	0.002<	0.003<	8.54	0.2<M	0.020	1.30	0.001		
830808	1230	16491	0.002<	0.003<	8.39	0.2<T	0.014	0.91	0.003		
830920	1300	16504	0.002<	0.003<	8.11	0.2<M	0.022	1.10	0.004		
831017	1300	16517	0.002<	0.003<	8.13	0.2<M	0.020	2.40	0.002		
831121	1535	16530	0.002<	0.003<	7.90	0.2<M	0.014	0.88	0.010		
831219	1505	16543	0.002<	0.003<	8.22	0.2<M	0.015	1.50	0.017		

(CONTD)

III

1983 WATER QUALITY DATA REGION 4

154

B.O.W./ SITE: BENNETT LAKE OUTLET
 SAMPLE POINT: AT OUTLET DAM NEAR FALLBROOK
 STATION TYPE: RIVER

STATION ID: 18-3430-610-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MISSISSIPPI RIVER

STORET CODE: 02
 006
 2670

LAT: 44 56 51.99 LONG: 076 24 39.02

U T M: 18 0388700.0 4977900.0 4

REGION: 04

DISTANCE: 88.351

*INTERIM TEST-NAME:		NIUT NICKEL	PBUT LEAD	PH	PHNOL PHENOLS	PPUT PHOSPHOR	TURB	ZNUT ZINC
SAMPLE		UNF.TOT.	UNF.TOT.		UNF-REAC	UNF.TOT.		UNF.TOT.
DATE	HOUR	MG/L	MG/L		UG/L	MG/L	TURB'ITY	MG/L
YYMMDD	LMT	AS NI	AS PB	PH	PHENOL	AS P	FTU	AS ZN
MAXIMUM				8.54	0.2	0.022	2.40	0.017
ARITH MEAN				8.10	0.1<A	0.016	1.06	0.005
GEOM MEAN				8.10		0.015	0.97	
MINIMUM				7.88	-0.6	0.010	0.48	0.001
STD DEV (GEOM M)				0.21		0.004	0.53	
# SAMP IN STATISTICS				11	11	11	11	9
% SAMP (EXCLUDED)								18

III

1983 WATER QUALITY DATA REGION 4

155

B.O.W./ SITE: MADAWASKA RIVER
 SAMPLE POINT: AT HIGHWAY NO.17 ARNPRIOR
 STATION TYPE: RIVER

STATION ID: 18-3490-020-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: MADAWASKA RIVER

STORET CODE: 02
 006
 2710

LAT: 45 26 02.92 LONG: 076 21 02.44

U T M: 18 0394350.0 5031850.0 4

REGION: 04

DISTANCE: 1.127

*=-INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWSTRC	FWTEMP	NNHTFR
SAMPLE		SAMPLE	PROJECT	ALK	CONDUCT.	COPPER	DISOLVED	IRON			
DATE HOUR		DEPTH	SUB-PROJ	TOTAL	25C	UNF. TOT.	OXYGEN	UNF. TOT.		WATER	NH3-N
YYMMDD LMT		M	CODE	MG/L	UMHO/CM	MG/L	MG/L	MG/L	STREAM	TEMP	TOTAL
				AS CAC03	AT 25 C	AS CU	AS O	AS FE	COND.	DEG.C	MG/L
											AS N
830207	1345	16419	0101	36.9	102.0	0.024	12.00	0.100	8	2.0	0.006
830316	1100	16432	0101	32.2	96.7	0.001	13.00	0.130	8	3.0	0.004<T
830330	1110	16445	0101	38.2	102.0	0.019	13.00	0.115	8	2.0	0.002<T
830530	1525	16458	0101	41.1	105.9	0.001	11.00	0.200	8	15.0	0.010
830622	1515	16471	0101	36.7	98.8	0.027	11.00	0.170	8	21.0	0.004<T
830725	1820	16484	0101	42.9	108.0	0.003	9.00	0.260	8	23.0	0.002<W
830809	0745	16497	0101	43.5	108.4	0.002	8.00	0.145	8	19.0	0.002<W
830920	1510	16510	0101	43.5	106.8	0.001<	9.00	0.145	8	22.0	0.048
831017	1600	16523	0101	44.6	111.2	0.001	11.00	0.215	8	14.0	0.028
831122	1030	16536	0101	41.8	107.8	0.001<	12.00	0.180	8	5.5	0.018
831220	0945	16549	0101	45.5	118.0	0.001	14.00	0.100	8	0.5	0.014
MAXIMUM		0.30		45.5	118.0	0.027	14.00	0.260		23.0	0.048
ARITH MEAN		0.30		40.6	106.0	0.009	11.18	0.160		11.5	0.013<A
GEOM MEAN				40.4	105.8		11.03	0.153		6.8	0.007<A
MINIMUM		0.30		32.2	96.7	0.001	8.00	0.100		0.5	0.002
STD DEV (GEOM *)				4.1	6.0		1.89	0.051		9.0	0.014<A
# SAMP IN STATISTICS		10		11	11	9	11	11		11	11
% SAMP (EXCLUDED)						18					
*=-INTERIM TEST-NAME:		PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT			
SAMPLE		LEAD		PHENOLS	PHOSPHOR			ZINC			
DATE HOUR		UNF. TOT.		UNF-REAC	UNF. TOT.	RESIDUE		UNF. TOT.			
YYMMDD LMT		MG/L		UG/L	MG/L	PARTIC.	TURB.ITY	MG/L			
		AS PB	PH	PHENOL	AS P	MG/L	FTU	AS ZN			
830207	1345	16419	0.003<	7.88	0.017	1.010	1.03	0.002			
830316	1100	16432	0.003<	7.62	0.011	2.300	1.40	0.001			
830330	1110	16445	0.003<	7.83	0.021	1.290	1.19	0.004			
830530	1525	16458	0.003<	7.79	0.8	0.017	3.570	0.001			
830622	1515	16471	0.003<	7.66	0.4<T	0.022	3.370	0.003			
830725	1820	16484	0.003<	7.55	0.4<T	0.025	5.480	0.002			
830809	0745	16497	0.003<	7.62	0.2<T	0.018	1.930	0.001			
830920	1510	16510	0.005	7.82	0.2<W	0.023	2.140	0.004			
831017	1600	16523	0.003<	7.92	0.2<W	0.024	3.500	0.002			
831122	1030	16536	0.003<	7.73	0.018	3.710	3.60	0.003			
831220	0945	16549	0.003<	7.84	0.2<T	0.010	0.980	0.005			

(CONTD)

1983 WATER QUALITY DATA REGION 4

156

B.O.W./ SITE: MADAWASKA RIVER
SAMPLE POINT: AT HIGHWAY NO.17 ARNPRIOR
STATION TYPE: RIVER

STATION ID: 18-3490-020-02

MAJOR BASIN: GREAT LAKES
MINOR BASIN: OTTAWA RIVER
TERM STREAM: MADAWASKA RIVER

STORET CODE: 02
006
2710

LAT: 45 26 02.92 LONG: 076 21 02.44 U T M: 18 0394350.0 5031850.0 4 REGION: 04 DISTANCE: 1.127

#=INTERIM		TEST-NAME:	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
SAMPLE			LEAD		PHENOLS	PHOSPHOR			ZINC
DATE			UNF.TOT.		UNF-REAC	UNF.TOT.	RESIDUE		UNF.TOT
YYMMDD	HOUR	SAMPLE	MG/L		UG/L	MG/L	PARTIC.	TURB'ITY	MG/L
LMT		NUMBER	AS PB	PH	PHENOL	AS P	MG/L	FTU	AS ZN
		MAXIMUM	0.005	7.92	0.8	0.025	5.480	4.70	0.005
		ARITH MEAN	0.005	7.75	0.3<A	0.019	2.662	2.53	0.003
		GEOM MEAN		7.75	0.3<A	0.018	2.318	2.26	0.002
		MINIMUM	0.005	7.55	0.2	0.010	0.980	1.03	0.001
		STD DEV (GEOM *)		0.12	0.2<A	0.005	1.395	1.18	0.001
#	SAMP	IN STATISTICS	1	11	9	11	11	11	11
%	SAMP	(EXCLUDED)	90						

1983 WATER QUALITY DATA REGION 4

157

B.O.W./ SITE: BONNECHERE RIVER
 SAMPLE POINT: COUNTY ROAD 3 2 MILES EAST OF CASTLEFORD
 STATION TYPE: RIVER FLOW GAUGE FED 02KC009

STATION ID: 18-3690-010-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: BONNECHERE RIVER

STORET CODE: 02
 006
 2905

LAT: 45 30 52.41 LONG: 076 33 24.49 U T M: 18 0378400.0 5041075.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	COND25	CUUT	DO	FEUT	FWFLOW	FWSTRC	FWTEMP
SAMPLE DATE	YEAR MONTH DAY	SAMPLE DEPTH	PROJECT SUB-PROJ	ALK TOTAL	CONDUCT. 25C	COPPER UNF. TOT.	DISOLVED OXYGEN	FEUT IRON UNF. TOT.	FWFLOW STREAM FLOW	FWSTRC STREAM COND.	FWTEMP WATER TEMP
YMMDD	LMT	M	CODE	AS CAC03	UMHO/CM AT 25 C	MG/L AS CU	MG/L AS O	MG/L AS FE	M3 /S		DEG.C
830104	1200	15300	0.30	0101	68.4	177.0	0.062	17.00	0.170	19.000	1.0
830207		15302	0.30	0101	65.8	173.0	0.056	16.00	0.185	21.000	1.0
830301	1200	15304	0.30	0101	50.4	135.0	0.043	16.00	0.115	17.800	1.0
830405		15306		0101	68.3	174.0	0.090		3.775	52.900	
830502	1200	15308	0.30	0101	66.2	170.0	0.076	13.00	0.405	66.600	11.0
830606	1200	15310	0.30	0101	50.5	119.9	0.130	13.00	0.425	51.500	16.0
830704	1200	15312	0.30	0101	90.6	210.0	0.030	12.00	0.328	7.310	25.0
830808	1200	15314	0.30	0101	53.2	132.0	0.180	13.00	0.165	8.240	25.0
830912	1200	15316	0.30	0101	48.4	120.0	0.180	10.00	0.165	6.280	24.0
831003	1200	15318	0.30	0101	58.4	149.0	0.004	12.00	0.165	5.530	16.0
831107	1200	15320	0.30	0101	56.4	145.0	0.072	15.00	0.230	7.740	5.0
831205	1200	15322	0.30	0101	74.0	199.0	0.061	15.00	0.160	13.000	1.0
MAXIMUM		0.30		90.6	210.0	0.180	17.00	3.775	66.600		25.0
ARITH MEAN		0.30		62.5	158.7	0.082	13.82	0.524	23.075		11.5
GEOM MEAN				61.5	156.1	0.060	13.66	0.266	15.951		5.7
MINIMUM		0.30		48.4	119.9	0.004	10.00	0.115	5.530		1.0
STD DEV (GEOM #)				12.2	29.7	0.055	2.14	1.029	21.396		10.2
# SAMP IN STATISTICS		11		12	12	12	11	12	12		11
% SAMP (EXCLUDED)											

*INTERIM TEST-NAME:		NNHTR	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
SAMPLE DATE	YEAR MONTH DAY	FIL. REAC	LEAD UNF. TOT.	PH	PHENOLS UNF. REAC	PHOSPHOR UNF. TOT.	RESIDUE PARTIC.	TURB'ITY FTU	ZINC UNF. TOT.
YMMDD	LMT	MG/L AS N	MG/L AS PB		UG/L PHENOL	MG/L AS P	MG/L		MG/L AS ZN
830104	1200	15300	0.024	0.003<	7.84	0.4<T	0.018	2.650	0.006
830207		15302	0.018	0.003<	7.79	0.2<W	0.018	2.890	0.004
830301	1200	15304	0.410	0.003<	8.06	0.2<W		2.250	0.002
830405		15306	0.008	0.003<	7.54	1.0	0.120	56.100	0.016
830502	1200	15308	0.004<T	0.003<	7.98	0.2<T	0.027	27.100	0.004
830606	1200	15310	0.056	0.003<	7.80	0.2<W	0.038	9.840	0.007
830704	1200	15312	0.024	0.480	7.98	0.2<T	0.040	6.340	5.200
830808	1200	15314	0.014	0.004	7.80	0.2<W	0.005	2.370	0.009
830912	1200	15316	0.014	0.004	7.70	0.2<T	0.022	3.370	0.009
831003	1200	15318	0.050	0.014	7.89	0.2<W	0.025	2.840	0.040
831107	1200	15320	0.004<T	0.003<	7.90	0.2<W	0.020	7.170	0.008
831205	1200	15322	0.010	0.003<	8.00	0.4<T	0.016	1.850	0.005

(CONT'D)

STATION ID: 18-3690-010-02

STORET CODE: 02
006
2905

LAT: 45 30 52.41 LONG: 076 33 24.49 U T M: 18 0378400.0 5041075.0 4 REGION: 04 DISTANCE: 0.805

*INTERIM		TEST-NAME:	NNHTFR NH3-N TOTAL	PBUT	PH	PHNOL	PPUT	RSP	TURB	ZNUT
SAMPLE DATE	HOOR	SAMPLE	FIL.REAC	UNF.TOT.		PHENOLS	PHOSPHOR			
YYMMDD	LHT	NUMBER	MG/L	MG/L		UNF-REAC	UNF.TOT.	RESIDUE	TURB'ITY	UNF.TOT.
			AS N	AS PB	PH	UG/L	MG/L	PARTIC.	FTU	MG/L
						PHENOL	AS P	MG/L		AS ZN
		MAXIMUM	0.410	0.480	8.06	1.0	0.120	56.100	6.90	5.200
		ARITH MEAN	0.053<A	0.125	7.86	0.3<A	0.032	10.397	3.73	0.442
		GEOM MEAN	0.019<A		7.86	0.3<A	0.024	5.300	3.30	0.012
		MINIMUM	0.004	0.004	7.54	0.2	0.005	1.850	1.30	0.002
		STD DEV (GEOM *)	0.114<A		0.14	0.2<A	0.031	16.016	1.83	1.498
#	SAMP	IN STATISTICS	12	4	12	12	11	12	11	12
%	SAMP	(EXCLUDED)		66						

1983 WATER QUALITY DATA REGION 4

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B.O.W./ SITE: PETAWAWA RIVER
 SAMPLE POINT: HIGHWAY 17 BRIDGE PETAWAWA
 STATION TYPE: RIVER FLOW GAUGE FED 02KB001

STATION ID: 18-4930-020-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: PETAWAWA RIVER

STORET CODE: 02
 006
 4350

LAT: 45 54 12.65 LONG: 077 17 08.60 U T M: 18 0322700.0 5085650.0 4 REGION: 04 DISTANCE: 2.897

*=INTERIM TEST-NAME:		FWSADP	FGPROJ	ALKT	ASUT	CDUT	COND25	CRUT	CUUT	DO	FEUT
				ALK	ARSENIC	CADMIUM	CONDUCT.	CHROMIUM	COPPER	DISOLVED	IRON
SAMPLE		SAMPLE	PROJECT	TOTAL	UNF.TOT.	UNF.TOT.	25C	UNF.TOT.	UNF.TOT.	OXYGEN	UNF.TOT.
DATE	HOUR	NUMBER	SUB-PROJ	MG/L	MG/L	MG/L	UMHO/CM	MG/L	MG/L	MG/L	MG/L
YYMMDD	LMT		CODE	AS CAC03	AS AS	AS CD	AT 25 C	AS CR	AS CU	AS O	AS FE
830208		15438	0.30	0101	14.7		49.8		0.001	11.00	0.205
830308	1500	15439	0.30	0101					0.007	8.00	
830412	1300	15440	0.30	0101	16.1		47.9		0.001<	15.00	0.225
830517	1300	15441	0.30	0101		0.001<	0.0002	0.001<	0.001	8.00	
830607	1400	15443	0.30	0101	10.2		45.5		0.001<		0.220
830709	1100	15445	0.30	0101	15.1		49.8		0.001<	7.00	0.120
830712	1100	15444	0.30	0101	13.3		48.1		0.001	7.00	0.135
830906	1130	15446	0.30	0101					0.001	6.50	0.078
831108	1100	15447	0.30	0101	241.2		49.9		0.001<	9.50	0.135
		MAXIMUM	0.30		241.2		49.9		0.007	15.00	0.225
		ARITH MEAN	0.30		51.8		48.5		0.002	9.00	0.160
		GEOM MEAN			22.1		48.5			8.67	0.150
		MINIMUM	0.30		10.2		45.5		0.001	6.50	0.078
		STD DEV (GEOM *)			92.8		1.7			2.84	0.057
		# SAMP IN STATISTICS	9		6		1		5	8	7
		% SAMP (EXCLUDED)							44		
*=INTERIM TEST-NAME:		FWFLOW	FWSTRC	FWTEMP	NNHTFR	NNOTFR	NNO2FR	NNO3FR	NNTKUR	PBUT	PH
					NH3-N				K'DAHL N		
SAMPLE		STREAM		WATER	TOTAL	NO2+NO3N	NO2-N	NO3-N	TOTAL	LEAD	
DATE	HOUR	FLOW		TEMP	FIL.REAC	FIL.REAC	FIL.REAC	FIL.REAC	UNF.REAC	UNF.TOT.	
YYMMDD	LMT	M3	STREAM	DEG.C	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	PH
		/S	COND.		AS N	AS N	AS N	AS N	AS N	AS PB	
830208		15438	44.200	8	5.5	0.016				0.003<	7.21
830308	1500	15439	30.100	8	4.0					0.003<	
830412	1300	15440	132.000	8	2.0	0.016				0.003<	7.04
830517	1300	15441	193.000	8	5.0		0.105	0.0030	0.102	0.003<	
830607	1400	15443	102.000	8		0.032			0.260	0.003<	7.00
830709	1100	15445	25.800		24.0	0.014				0.003<	7.09
830712	1100	15444	22.600	8	24.0	0.016				0.003<	7.32
830906	1130	15446	13.700		24.0					0.003<	
831108	1100	15447	40.100	8	5.0	0.008				0.003<	7.70
		MAXIMUM	193.000		24.0	0.032	0.105	0.0030	0.102	0.260	7.70
		ARITH MEAN	67.056		11.7	0.017	0.105	0.0030	0.102	0.260	7.23
		GEOM MEAN	46.945		7.9	0.016					7.22
		MINIMUM	13.700		2.0	0.008	0.105	0.0030	0.102	0.260	7.00
		STD DEV (GEOM *)	61.685		10.3	0.008					0.26
		# SAMP IN STATISTICS	9		8	6	1	1	1	1	6
		% SAMP (EXCLUDED)									

(CONTD)

1983 WATER QUALITY DATA REGION 4

160

B.O.W./ SITE: PETAWAWA RIVER
 SAMPLE POINT: HIGHWAY 17 BRIDGE PETAWAWA
 STATION TYPE: RIVER FLOW GAUGE FED 02KB001

STATION ID: 18-4930-020-02

MAJOR BASIN: GREAT LAKES
 MINOR BASIN: OTTAWA RIVER
 TERM STREAM: PETAWAWA RIVER

STORET CODE: 02
 006
 4350

LAT: 45 54 12.65 LONG: 077 17 08.60 U T M: 18 0322700.0 5085650.0 4 REGION: 04 DISTANCE: 2.897

*=INTERIM TEST-NAME:		PHNOL	PPUT	RSF	RSP	TURB	ZNUT	
		PHENOLS	PHOSPHOR				ZINC	
SAMPLE		UNF-REAC	UNF.TOT.	RESIDUE	RESIDUE		UNF.TOT.	
DATE	HOUR	UG/L	MG/L	FILTERED	PARTIC.	TURB'ITY	MG/L	
YYMMDD	LMT	PHENOL	AS P	MG/L	MG/L	FTU	AS ZN	
830208		15438	-0.2<T	0.015		1.520	1.14	0.022
830308	1500	15439	0.8					0.009
830412	1300	15440	0.8	0.018		2.300	0.95	0.009
830517	1300	15441		0.010	41.2	7.500		0.002
830607	1400	15443	0.2<T	0.014		3.720	1.05	0.001
830709	1100	15445	0.2<T	0.010		1.180	0.66	0.001<
830712	1100	15444	0.2<W	0.008		0.552<T	0.60	0.017
830906	1130	15446	0.2<W					0.002
831108	1100	15447		0.020		13.800	0.95	0.001<
MAXIMUM		0.8	0.020	41.2	13.800	1.14		0.022
ARITH MEAN		0.3<A	0.014	41.2	4.367<A	0.89		0.009
GEOM MEAN			0.013		2.633<A	0.87		
MINIMUM		-0.2	0.008	41.2	0.552	0.60		0.001
STD DEV (GEOM *)			0.004		4.766<A	0.22		
# SAMP IN STATISTICS		7	7	1	7	6		7
% SAMP (EXCLUDED)								22

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RIVER BASIN	STREAM	SAMPLE POINT DESCRIPTION	DISTANCE	LOCATION CODE	C.O.M. INDEX	PAGE NO.
BLACK RIVER	BLACK RIVER	AT COUNTY ROAD 17	7.725	06-0172-001-02	2 E-01	9
BLOOMFIELD CREEK	BLOOMFIELD CREEK	AT CHURCH STREET BLOOMFIELD	5.954	06-0163-001-02	2 D-01	7
BONNECHERE RIVER	BONNECHERE RIVER	COUNTY ROAD 3 2 MILES EAST OF CASTLEFORD	0.805	18-3690-010-02	5 K-03	157
BUTLERS CREEK	BUTLERS CREEK	HIGHWAY 2, BROCKVILLE	0.483	12-0034-001-02	3 G-01	27
CARP RIVER	CARP RIVER	FIRST ROAD BRIDGE DNSTR OF CARP	21.440	18-3370-101-02	5 L-02	138
	CARP RIVER	FIRST ROAD BRIDGE DNSTR OF KINBURN	8.320	18-3370-121-02	5 M-02	139
CATARAQUI RIVER	CATARAQUI RIVER	HIGHWAY 2, KINGSTON (CENTRE)	0.805	12-0004-001-02	3 C-01	19
	CATARAQUI RIVER	AT DAM, KINGSTON MILLS	8.207	12-0004-002-02	3 D-01	21
CONSECON CREEK	CONSECON CREEK	AT MILL DAM CONSECON	0.322	06-0157-001-02	2 A-01	1
	CONSECON CREEK	AT COUNTY ROAD 2 ALLISONVILLE	14.001	06-0157-002-02	2 B-01	3
	CONSECON CREEK	AT HIGHWAY 14	22.852	06-0157-003-02	2 C-01	5
DELISLE RIVER	DELISLE RIVER	AT CNR TRESTLE DNSTR.OF ALEXANDRIA	44.578	12-0086-001-02	3 M-01	38
	DELISLE RIVER	AT FIRST BRIDGE UPSTR.OF ALEXANDRIA	46.509	12-0086-002-02	3 A-02	40
	GARRY RIVER	AT CNR TRESTLE ALEXANDRIA	48.279	12-0086-003-02	3 B-02	42
	GARRY RIVER	AT FIRST BRIDGE UPSTR.OF ALEXANDRIA	50.049	12-0086-004-02	3 C-02	44
DEMORESTVILLE CREEK	DEMORESTVILLE CREEK	AT COUNTY ROAD 14	4.828	17-0014-001-02	4 B-01	48
GANANOQUE RIVER	GANANOQUE RIVER	AT RR TRESTLE CANADIAN STEEL GANANOQUE	0.966	12-0017-001-02	3 E-01	23
	GANANOQUE RIVER	HIGHWAY 32, 2 MILES NORTH OF HIGHWAY 401	6.115	12-0017-004-02	3 F-01	25
LITTLE CATARAQUI CRE	LITTLE CATARAQUI CREEK	HIGHWAY 2, 1 MILE SOUTHEAST OF CATARAQUI	4.345	12-0002-004-02	3 A-01	15
	LITTLE CATARAQUI CREEK	AT RESERVOIR OUTLET DAM	8.207	12-0002-008-02	3 B-01	17
MADAWASKA RIVER	MADAWASKA RIVER	AT HIGHWAY NO.17 ARNPRIOR	1.127	18-3490-020-02	5 J-03	155
MILLHAVEN CREEK	MILLHAVEN CREEK	FIRST CONCESSION ROAD SOUTH OF ODESSA	6.437	06-0180-004-02	2 F-01	11
	MILLHAVEN CREEK	AT COUNTY ROAD 6	10.782	06-0180-005-02	2 G-01	13
MISSISSIPPI RIVER	BENNETT LAKE OUTLET	AT OUTLET DAM NEAR FALLBROOK	88.351	18-3430-610-02	5 I-03	153

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RIVER BASIN	STREAM	SAMPLE POINT DESCRIPTION	DISTANCE	LOCATION CODE	C.O.M. PAGE INDEX NO.
MISSISSIPPI RIVER	CLYDE RIVER	BELOW LANARK	86.902	18-3430-520-02	5 G-03 151
	CLYDE RIVER	ABOVE LANARK	90.121	18-3430-530-02	5 H-03 152
	MISSISSIPPI RIVER	AT RAILWAY BRIDGE NORTH GALETTA	3.701	18-3430-030-02	5 A-03 140
	MISSISSIPPI RIVER	AT DAM BELOW PAKENHAM	14.966	18-3430-034-02	5 B-03 142
	MISSISSIPPI RIVER	DOWNSTREAM OF ALMONTE	28.485	18-3430-040-02	5 C-03 143
	MISSISSIPPI RIVER	BRIDGE AT APPLETON APPROX. 4.5KM DNSTR CARLETON PLACE STP	49.882	18-3430-061-02	5 D-03 145
	MISSISSIPPI RIVER	AT DALHOUSIE LAKE OUTLET	102.995	18-3430-175-02	5 E-03 147
	MISSISSIPPI RIVER	AT MAZINAW LAKE OUTLET	169.298	18-3430-230-02	5 F-03 149
MOIRA RIVER	BLACK RIVER	HIGHWAY 7 2 MILES EAST OF ACTINOLITE	62.763	17-0026-010-02	4 H-02 84
	CLARE RIVER	1ST.BRIDGE UPSTR.OF STOCO LAKE TWEED	52.785	17-0026-007-02	4 E-02 77
	MADOC CREEK	AT RAILWAY BRIDGE 1 MILE SOUTH OF MADOC	74.832	17-0026-012-02	4 J-02 87
	MOIRA LAKE	COUNTY BRIDGE 1 MILE SOUTH OF MADOC	71.453	17-0026-011-01	4 I-02 85
	MOIRA RIVER	FOOTBRIDGE NORTH OF HIGHWAY 2 BELLEVILLE	1.127	17-0026-001-02	4 M-01 68
	MOIRA RIVER	BRIDGE IN CANNIFTON	6.276	17-0026-002-02	4 A-02 71
	MOIRA RIVER	AT STOCO LAKE OUTLET	43.773	17-0026-003-02	4 B-02 74
	MOIRA RIVER	STOCO BRIDGE HUNGERFORD TOWNSHIP	47.796	17-0026-004-02	4 C-02 75
	MOIRA RIVER	JAMESON STREET TWEED	50.210	17-0026-006-02	4 D-02 76
	MOIRA RIVER	HIGHWAY 7 1 MILE SOUTH OF DELORO	92.696	17-0026-013-02	4 K-02 89
	MOIRA RIVER	DOWNSTREAM FROM VILLAGE OF MALONE	100.742	17-0026-019-02	4 L-02 91
	SKOOTAMOTTA RIVER	HIGHWAY 7 NEAR ACTINOLITE	60.671	17-0026-009-02	4 G-02 81
NAPANEE RIVER	SULPHIDE CREEK	UPSTREAM FROM STOCO LAKE HUNGERFORD TWP	52.785	17-0026-008-02	4 F-02 80
	NAPANEE RIVER	DOWNSTREAM FROM NAPANEE	5.633	17-0035-001-02	4 B-03 96
	NAPANEE RIVER	MINK BRIDGE UPSTREAM FROM HIGHWAY 401	14.806	17-0035-002-02	4 C-03 98

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RIVER BASIN	STREAM	SAMPLE POINT DESCRIPTION	DISTANCE	LOCATION CODE	C.O.M. INDEX	PAGE NO.
NAPANEE RIVER	NAPANEE RIVER	AT BRIDGE IN TOWN OF NEWBURGH	22.530	17-0035-004-02	4 D-03	100
OTTAWA RIVER	OTTAWA RIVER	CHANNEL 1 AND 2 HAWKESBURY	109.432	18-0000-051-82	5 A-01	102
	OTTAWA RIVER	PERLEY BRIDGE, HAWKESBURY MAIN CHANNEL	109.432	18-0000-078-83	5 B-01	103
	OTTAWA RIVER	AT CHATS FALLS 900' FROM P/Q SHORE	263.281	18-0000-170-02	5 C-01	104
	OTTAWA RIVER	AT CHENAUX DAM 800' FROM P/Q SHORE	303.514	18-0000-240-02	5 D-01	105
PETAWAWA RIVER	PETAWAWA RIVER	HIGHWAY 17 BRIDGE PETAWAWA	2.897	18-4930-020-02	5 L-03	159
PICTON CREEK	PICTON CREEK	AT CONSERVATION AREA POUND	1.287	17-0008-001-02	4 A-01	46
RAISIN RIVER	NORTH RAISIN RIVER	AT FIRST UPSTREAM OF MARTINTOWN	25.266	12-0073-011-02	3 K-01	34
	RAISIN RIVER	1ST.BEND DOWNSTREAM FROM WILLIAMSTOWN	9.495	12-0073-003-02	3 H-01	29
	RAISIN RIVER	1ST.BRIDGE DOWNSTREAM FROM ST.ANDREWS	32.669	12-0073-008-02	3 I-01	31
	RAISIN RIVER	AT COUNTY ROAD NO 18 EAST OF LUNENBURG	56.004	12-0073-010-02	3 J-01	33
	SOUTH RAISIN RIVER	AT CO.RD.NO.20 SOUTH OF CASHIONGLEN	17.863	12-0073-015-02	3 L-01	36
RIDEAU RIVER	JOCK RIVER	AT TWP.LINE DOWNSTREAM FROM RICHMOND	41.359	18-0033-016-02	5 G-01	111
	JOCK RIVER	AT QUEEN STREET RICHMOND	44.256	18-0033-017-02	5 H-01	112
	JOCK RIVER	AT MOODIE DRIVE BRIDGE	33.313	18-0033-036-02	5 C-02	125
	KEMPTVILLE CREEK	HIGHWAY 43, KEMPTVILLE	56.165	18-0033-003-02	5 E-01	107
	RIDEAU RIVER	AT DAM IN KILMARNOCK	88.190	18-0033-026-02	5 J-01	115
	RIDEAU RIVER	DNSTR.FROM CONFLUENCE WITH JOCK RIVER	24.461	18-0033-028-02	5 K-01	117
	RIDEAU RIVER	AT BRIDGE DOWNSTREAM OF KARS	38.945	18-0033-029-02	5 L-01	118
	RIDEAU RIVER	AT HOG'S BACK ROAD OTTAWA	11.426	18-0033-031-02	5 M-01	120
	RIDEAU RIVER	ST. PATRICK STREET BRIDGE OTTAWA	1.609	18-0033-034-02	5 A-02	121
	RIDEAU RIVER	AT NICOLSON'S LOCK ANDREWSVILLE	73.545	18-0033-035-02	5 B-02	123
	RIDEAU RIVER	AT LONG ISLAND GAUGING STATION	25.910	18-0033-037-02	5 D-02	126
	TAY RIVER	1 MILE DOWNSTREAM FROM PERTH LAGOONS	114.099	18-0033-008-02	5 F-01	109

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RIVER BASIN	STREAM	SAMPLE POINT DESCRIPTION	DISTANCE	LOCATION CODE	C.O.M. INDEX	PAGE NO.
RIDEAU RIVER	TAY RIVER	AT DAM IN BOLINGBROKE	151.596	18-0033-023-02	5 I-01	114
SALMON RIVER	SALMON RIVER	AT OLD HIGHWAY 2, SHANNONVILLE	2.897	17-0031-001-02	4 M-02	92
	SALMON RIVER	AT BRIDGE IN MILLTOWN	4.989	17-0031-002-02	4 A-03	94
SAMGUIN CREEK	SAMGUIN CREEK	AT COUNTY ROAD 28	8.851	17-0016-001-02	4 C-01	50
SOUTH NATION RIVER	CASTOR RIVER	AT CONC RD.NO.5 RUSSELL TNP.	82.396	18-2070-140-02	5 J-02	135
	CASTOR RIVER	AT CONC.RD.NO.3 RUSSELL TNP.	85.615	18-2070-145-02	5 K-02	136
	SCOTCH RIVER EAST	AT CONC.17 DOWNSTREAM FROM ST.ISIDORE	48.601	18-2070-040-02	5 F-02	130
	SCOTCH RIVER EAST	AT CONC.19 UPSTREAM FROM ST.ISIDORE	51.015	18-2070-060-02	5 G-02	132
	SOUTH NATION RIVER	HIGHWAY 17 PLANTAGENET	10.300	18-2070-020-02	5 E-02	128
	SOUTH NATION RIVER	AT DAM DOWNSTREAM OF CASSELMAN	62.763	18-2070-100-02	5 H-02	133
	SOUTH NATION RIVER	AT DAM CHESTERVILLE	93.339	18-2070-110-02	5 I-02	134
TRENT RIVER	BOW LAKE OUTLET	AT HWY.28 SOUTH-WEST OF BANCROFT 71 3	185.391	17-0021-062-02	4 G-01	55
	COLD CREEK.	HIGHWAY 33 BRIDGE IN FRANKFORD	12.070	17-0021-046-02	4 E-01	53
	CREEK OUTLET OF BENTLEY LAKE	UPSTR.OF MADAMASKA MINE TAILINGS 70 2	189.576	17-0021-064-02	4 I-01	57
	CREEK TRIBUTARY TO BOW LAKE	DNSTR.OF MADAMASKA MINE TAILINGS 70 1	188.288	17-0021-063-02	4 H-01	56
	CROME RIVER	AT HWY.NO.28 PAUDASH LAKE OUTLET 76 1	172.034	17-0021-089-02	4 K-01	66
	RAWDON CREEK	AT HWY.NO.33 SOUTH OF STIRLING	24.783	17-0021-047-02	4 F-01	54
	TRENT RIVER	HIGHWAY 401 BRIDGE NEAR TRENTON.	3.862	17-0021-045-02	4 D-01	52
	TRENT RIVER	NEW HIGHWAY 2 BRIDGE TRENTON	0.805	17-0021-068-83	4 J-01	58
	TRENT RIVER	AT GLEN ROSS BRIDGE	23.013	17-0021-118-02	4 L-01	67



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